

Determinants of Living Arrangements of Lesotho's Elderly Female Population

By Chuks J. Mba ¹

Abstract

The paper addresses the demographic and socioeconomic correlates of living arrangements of women aged 60 years and over in Lesotho using the 1996 Census of Lesotho data file. Simple cross-tabular and multivariate techniques are applied to the household distribution of the census. The results show that a majority of elderly women in the country are widows, live in the rural areas, have had little education, and dwell in extended family households of which a significant proportion of them are the head. The findings further indicate that the age of the women's surviving children, and advancing age of the elderly themselves are important factors contributing to kin coresidence of the Lesotho elderly female population. The propensity of coresidence is found to increase with advancing age, while higher levels of educational attainment have significant negative correlation with the likelihood of kin coresidence. A combination of fertility decline, migration, and urbanization puts the older women in a disadvantaged position since there are fewer adult children available to provide support and care, and there is no universal non-familial social security system.

Key Words: Elderly, Lesotho, Women.

Introduction and Rationale

The significant achievements of global declines in infant and maternal mortality, reductions in fertility, decreases in infectious and parasitic diseases, as well as improvements in nutrition and education, have resulted in the numerical growth of elderly populations around the world (United Nations, 2001a; World Health Organization, 2000). Simultaneously, the growth of elderly populations poses formidable challenges to national public policies because a society's needs change as its proportion of elderly persons increases (Moon and Mulvey, 1996; Scharlach, 1994).

Defined as persons aged 60 years and over (United Nations, 2001a), the world's elderly population is expected to rise from 606 million in 2000 to almost 2 billion by 2050, representing an increase of about 230 percent over the period. As a result of gains in life expectancy and declines in fertility, the older population in most countries is growing faster than the population as a whole. What is more, if the envisaged reductions in mortality and fertility occur as currently projected, population aging will inevitably become a universal phenomenon in Africa and all the other regions of the world in the coming decades (United Nations, 2001a; 1999a). Even so, the rapidly expanding numbers of elderly persons represent a social phenomenon without any historical precedent.

Unfortunately, though, the phenomenon of population aging has been a prominent issue largely restricted to the developed economies of North America, Europe, and Asia. In many of these nations, intense public debates have been carried out on issues such as social security costs, health care provision, and educational investments, all of which have a strong

direct correlation with the changing age structure of their populations. Available evidence indicates that policy options for responding to population aging through social security, pension, and health care systems reforms have been receiving increased attention in much of the developed world (United Nations, 2001a; Organisation for Economic Co-operation and Development, 1998; Pampel, 1998; World Bank, 1994). What is yet to be widely appreciated is that population aging is also occurring in the developing world, particularly in Africa, and that the elderly populations in Africa and the other developing regions are growing much more rapidly than those in the economically advanced countries. Africa's aging populations are triggered more by the rapid fertility decline that is currently sweeping parts of the region (Vimard, 2000; Mbamaonyekwu, 2000; Casterline, 1999; Chimere-Dan, 1998; Orubuloye, 1995; Blacker, 1994; Caldwell and Caldwell, 1993; Caldwell et al., 1992).

The demographic profile of Lesotho reveals that currently persons aged 60 years and over constitute about seven percent of the total population (which is among the highest in Africa), and as a result of future fertility and mortality declines, by 2050 this proportion will rise to 13 percent (Kingdom of Lesotho, 1996; United Nations, 2001a; United Nations, 2001b; 1999a; World Bank, 2000). Elderly females constitute about 59.3 percent of this proportion. The country's life expectancy at birth has been estimated at 51.6 years for females and 50.7 years for males for the year 2000, and is projected to be 65.6 years and 64.8 years for females and males respectively, for the 2045-2050 period (United Nations, 2001b). As in many African societies, the family continues to be the primary institution equipped to provide support for the elderly in Lesotho (Wright, 1999; Fonchingong, 1999; Leung, 1997). An aging population poses a threat because families will now have fewer descendants available to care for the increasing number of surviving elderly persons.

The purpose of this article is to examine levels and differentials in the living arrangements of Lesotho's elderly females with a view to raising awareness about their plight for possible policy interventions, and to stimulate further research. The focus is on elderly females for two main reasons. In the first instance, as is the case in all populations of the world, females live longer than males (United Nations, 1973; Bicego and Ahmad, 1996). In particular, census results indicate that females are disproportionately higher in the older age groups in Lesotho (Kingdom of Lesotho, 1996; 1987), and they are projected to increase steadily over the next few decades as a result of sex differentials in life expectancy (United Nations, 1999a). Secondly, since most men marry women who are much younger than themselves in Lesotho and in other parts of Africa, women are more likely than men to be widowed; and as a consequence, they are also more likely to experience conditions necessitating familial or institutional support than men.

Review of Relevant Literature

A plethora of research studies have been documented on the living arrangements of older persons in developed countries largely because population aging is already advanced in these countries (see, for example, United Nations, 1999b; United Nations, 1998; Lynch, 1998; Michael et al., 1980; Chevan and Korson, 1975; Sweet, 1972). In the developing world, analysts interested in population aging have focused attention primarily in Asia and Latin America. In their study, Asis and colleagues (1995) found that coresidence of elderly persons with one of their adult children is prevalent in developing countries because of the negative correlation between levels of kin coresidence and socio-economic development. It should be

noted that there is mutual benefit derivable from kin coresidence. This is because while the elderly persons depend on the younger generation for financial, social, and healthcare support, the latter depend on the former to look after the home when they are away or take care of younger children. Other studies on household size and composition, as well as patterns of living arrangements and their socio-economic determinants with reference to the elderly persons in developing countries, include those of Cameroon (2000); Palloni et al. (1999); De Vos (1998); Knodel and Chayovan (1997); Chen (1996); and Martin (1989). These studies reach the common conclusion that elderly persons prefer to co-reside with their kin, especially with their spouse and children, and that elderly females are less likely than their male counterparts to live with a spouse.

Studies on the older persons' living arrangement patterns and their determinants in Lesotho, and Africa in general, are a rarity. Although social structures and gender preferences differ substantially among countries, studies elsewhere bearing on this subject show that the gender of a coresiding child has implications for the level and nature of support provided to the elderly persons (Ofstedal et al. 1999; Chan 1997; Natividad and Cruz 1997; Chan and DaVanzo 1996; DaVanzo and Chan 1994).

Lesotho follows a patriarchal social system in which kinship and identity are chiefly based on marriage. In fact, only married Basotho men are entitled to land (Epprecht, 2000; Wright, 1999; Gill, 1993; Sansom, 1974; Stevens, 1967)¹. As soon as he gets married, a Mosotho man is entitled to residential site on which to build a house, and arable land to grow food crops. Upon marriage, a Mosotho woman and later the children of that marriage, assume membership of the husband's family. Even though she maintains relationships with the family of her birth, the strength of a woman's identity lies with her marital family, not her family of birth.

Because of better economic prospects in South Africa, which completely surrounds it, Lesotho has been consistently suffering from a high level of male labor migration. It is estimated that about 40 percent of the male labor force in the age group 20-39 is away in South Africa at any one time (Holland et al., 1988). These migrants are principally employed in the mines on contracts of between 6-18 months, which may be renewable. Migrant remittances play a very important role in the country's economy. It has been estimated that migrant remittances contributed about 43.7 percent of the Gross National Product in 1990 (UNDP/FAO, 1992). The migration of able-bodied men to South Africa effectively leaves agricultural production in the hands of women, children and the elderly. Indeed, women play a crucial role in Lesotho's agriculture as direct subsistence producers and as farm managers for absent male landholders. Because of the sex-selective migration of labor, there are significantly more women than men in Lesotho's domestic economy. Also, subsistence agriculture is the dominant occupation for the people left behind. Despite the high risks involved in crop production due largely to erratic rainfall, drought, hail and frost, it remains a central activity in the rural areas. Crop production is seen as essential in meeting the needs of households as a cushion against food insecurity in the event of inadequate or erratic remittances from migrant workers. Since Lesotho operates a patriarchal kinship system, it is necessary to examine what type of household structure and patterns of living arrangements

¹ The inhabitants of Lesotho are referred to as Basotho (singular, Mosotho).

characterize the country's female elderly persons, as well as the linkage between living arrangements and certain socio-economic characteristics.

Some researchers argue that the processes of modernization and urbanization are beginning to erode the traditional social welfare system of Africa, the extended family (Mbamaonyekwu, 2001; Mba, 2001; Apt, 1996). In a typical African extended family unit, one readily finds elderly persons, adults, young people and children (Adeokun, 1981). One of the most important attributes of the traditional extended family is its potential for caring for the elderly population as a result of the social relations and interactions among kin groups, as well as roles and responsibilities different age groups assume. However, Apt (1996) contends that at precisely the point of time at which the numbers of the aged are growing, their customary source of support is being eroded. It is generally believed that as societies modernize and urbanize, the size and complexity of households and families reduce, transforming from the extended to the nuclear type (Thomas and Price 1999; Kattak 1999; Hollos and Larsen 1997; Reay 1996; Chan and Lee 1995; Treas and Logue 1986; United Nations 1973; Goode 1963). In particular, Goode (1963) argues that with the expansion of the economic system through industrialization, family patterns will change and there will be a weakening of ties with the older generation. This refers to a decline in social interaction and physical and financial support for the elderly persons, in addition to greater prevalence of separate living arrangements as a country develops. Therefore, using education and urban/rural residence as proxies for socioeconomic development, the thrust of the present paper is to examine the patterns of living arrangements of the elderly females of Lesotho in the light of this modernization theory. As size and composition levels of households have important implications for the well-being of older population, a study of this kind will no doubt shed some light on those factors that impinge on the survival and functioning of elderly persons in Lesotho.

Data and Methods

The data for this study proceed from the most recent headcount in Lesotho, the 1996 census. Access to the data file is made possible by the African Census Analysis Project of the Population Studies Center, University of Pennsylvania. The Project currently archives a huge collection of census micro data and other nationally representative survey data from parts of Africa used for purposes of demographic research and training (Zuberi, 2001). It is common knowledge that the literature is replete with problems associated with the collection of reliable information in the African context, especially the failure to enumerate all people or events and digit preference that leads to a false concentration of people at particular age groups (Ewbank, 1981; Shryock and Siegel, 1976; Bachi, 1951). However, an evaluation of the 1996 Lesotho census data has shown that the data are of good quality (Mba, 2002).

At the bivariate level, simple descriptive methods of analysis are used in this study, with emphasis on computation of percentages. The unit of analysis is the elderly woman. Elderly women are defined as those females aged 60 years and over (United Nations, 2001a; 1999a). However, analysis will distinguish between various age categories within this broad age span. For analytical convenience, the following definitions, which are often used in the literature, are employed in this study: youngest old (or elderly) refers to persons aged 60-64 years; young old refers to persons aged 60-69 years; and oldest old refers to persons aged 80 years and over (United Nations, 2001a; Serow and Cowart, 1998).

The selected socio-economic and demographic characteristics considered in the study include marital status, place of residence, level of educational attainment, employment status, household size, and age of surviving children. Because 12 categories were used in asking about employment status (such as employer, own account worker/farmer, regular wage/salary earner, casual worker, and unpaid family worker) during the enumeration exercise, for purposes of brevity and analytical convenience, the 12 categories are collapsed into *not working* for all those who are not in paid employment, and *working* for all those engaged in wage employment. Living arrangements are defined with respect to living alone, and living with others, including spouse, children, and grandchildren.

At the multivariate level, the multinomial logistic regression models are employed to predict the characteristics of the older women in different living arrangements and to test the modernization hypothesis in the Lesotho context. In this attempt, the various types of living arrangements will be collapsed into four, namely, (i) living alone; (ii) living with spouse only; (iii) living with spouse and children; and (iv) living with other relatives, for ease of interpretation. Since each of these four categories can be defined as dichotomous variables, coded 1 if the variable is present and 0 if it is not, the logistic regression methodology is suitable for providing these estimates (Kleinbaum et al., 1998). It should be noted that the present study's selected demographic and socioeconomic factors such as marital status, education, place of residence, employment status, and household size are variables that are deemed theoretically relevant as they will help in the examination of the modernization theory, earlier discussed. In particular, place of residence and education are used as proxies for economic development here. Therefore, if levels of economic development are operationalized according to these two standard socioeconomic indexes, one would expect the elderly women who score higher on these indexes to exhibit weaker extended kinship ties in their living arrangements and to be characterized by a higher propensity both to live alone and to dwell in smaller household sizes. To test this hypothesis, four sets of regression models are run for each category of living arrangements to predict the odds of living arrangement type on each outcome. The first (initial) model is the unadjusted and furnishes the gross effects of age. The second and third models control for the effects of education and place of residence, respectively, while the fourth (final) model adds further demographic and socioeconomic controls, including marital status, employment status, and household size. However, for purposes of brevity and ease of presentation, only the logistic regression coefficients predicting the likelihood of each outcome are shown for each category of living arrangements. Lastly, although the effects of the other variables employed in the analysis (marital status, employment status, and household size) may be ambiguous in the aggregate, however, research linking these factors to living arrangement outcomes suggests that they should be included as control variables (Mba, 2001; Natividad and Cruz, 1997; Moon and Mulvey, 1996).

Results

Table 1 shows the percentage distribution of elderly women of Lesotho by selected demographic and socioeconomic characteristics. As highlighted in the preceding discussion, persons aged 60 years and over constitute about 7.1 percent of the total population, out of which the number of women is 76,134, representing 59.3 percent. The results indicate that 33.9 percent of these women are aged 60-64 years, while fewer females are found in

subsequent age groups due to the effect of mortality. However, as high as 15.1 percent of them are aged 80 years and over.

The vast majority of the women are either widowed (55 percent) or married (40 percent), while the incidence of divorce is a rare occurrence in the country (1 percent). Also, about nine in every ten of these women reside in the rural areas where welfare services and amenities are relatively grossly lacking (Sembajwe and Makatsjane, 1992; United Nations, 1991).

Table 1 further shows that a little over a quarter of the older women of Lesotho have not been to school, while about seven out of every ten of them completed primary school. These two levels of educational attainment account for 95 percent of Lesotho females, implying that the fraction of the women who have been to secondary or institution of learning is very small.

While a substantial majority of the women are not engaged in formal wage employment, the youngest olds are more likely to be working (48 percent) than the other age groups obviously because they are younger and stronger. While the average size of households has fallen sharply in the developed countries, the reverse is the case in Lesotho and many African countries. The results show that most of the women live in households that contain six or more individuals. This, no doubt, is a reflection of the traditional kinship system that emphasizes extended family coresidence, so prevalent in Africa and other parts of the developing world (Hollos and Larsen, 1997; Chan, 1997; Kendig et al., 1992).

Some interesting patterns emerge when the surviving children of the elderly women are examined. Table 1 reveals that the older women of Lesotho are more likely to live with their young children than the older ones, although the difference is marginal. Overall, it is apparent when the foregoing characteristics of the older females are considered that the youngest old score highest in all, due largely to the fact that they are younger than the rest and are least affected by mortality. However, when the surviving children characteristic is examined, the oldest old score highest in the proportion of children staying with them. The reason for this is obvious. Being the oldest group of women, they are more likely to live with their children and grandchildren for care and support. This finding further lends credence to the contention that the family is the sole provider of support in traditional societies (Hollos and Larsen, 1997; Chan and DaVanzo, 1996; Asis et al., 1995; Kendig et al., 1992).

Percentage distribution of the older females' living arrangement in Lesotho is presented in Table 2. About 11 percent of these women live alone, with no substantial differences across the age groups. The table shows that in all the various categories of living arrangements considered, the greatest propensity of coresidence occurs in the age group 60-64 years. The explanation for this finding is obvious. Being the youngest older age group, women in this category are more likely to coreside with adult relatives, including spouses, children, parents/parents-in-law, and cousins, most of whom will still be alive at this time period. This contention receives further impetus when it is observed from the table that the likelihood of coresidence declines consistently with advancing age. On the whole, the traditional extended family living arrangement still prevails in Lesotho. This is because the majority of elderly women are more likely to coreside with their spouse, children, grandchildren, and other people. Another important finding from this table is that more of the older females live alone, while fewer of them coreside with their spouses. A plausible reason for this is that women experience a higher risk of death of a spouse because men are usually older than their wives and have higher age-specific death rates than women.

Table 3 shows the percentage distribution of elderly females according to their relationship to the head of the household. It should be noted that relationships among household members could be varied and complex, particularly in large household settings. The 1996 Lesotho Census Questionnaire recorded the following nine categories of relationship to the head for every household member: head, spouse, child, son/daughter-in-law, grandchild, parent/parent-in-law, other relatives, domestic employee, and other persons unrelated. For purposes of convenience and brevity, the categories were collapsed as indicated in Table 3. The results reveal that the female youngest elderly are more likely to be household heads than the other age groups. Also, more than one-half of those elderly women in this age group are likely to be spouses of the household heads, while about two out of every five of them may be either the children or other persons unrelated to the household heads. As expected, the findings indicate that the oldest olds living with the heads of households are more likely to be the parents or parents-in-law of the household heads. Overall, three categories are relatively discernable among Lesotho elderly females. These are the head (56 percent); spouse (24 percent); and parent/parent-in-law (12 percent). These three categories together account for 92 percent of older females in Lesotho.

Next, the study examines socio-economic differentials in the living arrangements of the older women by controlling for marital status, place of residence, level of education and employment status, and focusing on only those living arrangement indicators that generally imply the greatest likelihood of support or otherwise for the elderly population. The results of the analysis are presented in Table 4. Older females whose husbands have died are significantly more likely to live alone (75 percent), to live with an adult child (65 percent), and to be the head of the household (75 percent). This finding is not surprising since the demise of a spouse renders the surviving partner single and confers on her the status of the head, and the need for support and care make it imperative for her to stay with her adult child. Similarly, about nine in every ten elderly women who either reside in the rural areas or are jobless are more likely to live alone or coreside with their spouses or with the adult child or be the head of the household. Those women with primary education are substantially more likely to live alone or coreside with their spouses or with the adult child or be the head of the household. In general, the results shown in this table are consistent with previous tabulations and therefore support the argument that the influence of other factors in the living arrangement distributions of the older female population of Lesotho may be minimal.

Tables 5 and 6 present the multivariate logistic regression results, which strengthen the foregoing bivariate findings in predicting the characteristics of the older women in different living arrangements. In Table 5, the unadjusted estimates (Model I) indicate that those elderly women aged 75 years and above are at highest risk of living alone, and the oldest old (80+) women present the highest risk overall since they would be 4.8 times more likely than those aged 60-64 years to live alone. This relationship does not change with the addition of the socioeconomic and demographic variables (Models II-IV). However, both the partially adjusted models (Models II and III) and the fully controlled model (Model IV) reduce the likelihood of living alone. The pattern is different for the elderly women coresiding with their spouses only, for whom age has no significant impact on the propensity to live with a spouse only in the unadjusted (Model I) and the first partially adjusted (Model II) analyses. However, once the place of residence variable (Model III) and the full set of demographic and socioeconomic variables are added, the findings indicate that the elderly women aged 65-69

are significantly less likely to live with their spouse only than the 60-64-year-olds, followed by those women aged 70-74.

Table 6 shows that the pattern is different for the elderly women who live with their spouses and children since age has no significant impact on the likelihood of coresidence with spouse and children in the unadjusted estimates (Model I). After controlling for the influence of education (Model II), only those women aged 80+ are significantly more likely to live with spouse and children. However, when the place of residence variable (Model III) and the full set of demographic and socioeconomic variables (Model IV) are introduced, the analysis indicates that the elderly women aged 75-79 are significantly less likely to live with their spouses and children than their counterparts aged 60-64, followed by those aged 65-69, while the women aged 80+ remain significantly more likely to live with spouse and children.

Table 6 further shows that age has a significant effect on the propensity to live with other relatives in both the unadjusted and adjusted models, with the highest likelihood occurring after controlling for the full set of demographic and socioeconomic variables (Model IV) and for the oldest-old women. This is because the women aged 80+ years would be 61.3 times more likely than those aged 60-64 to live with other relatives.

The results of the multivariate analyses indicate that the elderly women with higher education levels are significantly more likely to live alone (Table 5), and are significantly less likely to live in extended family settings (with the exception of Model II, Table 5) than those women with only primary education. This partially confirms the modernization theory, although no clear pattern emerges when the place residence variable is considered.

Discussion and Policy Issues

The preceding analysis has revealed that the elderly women of Lesotho need special attention. The socio-economic characteristics of older people differ markedly from those of the younger population in Lesotho since a substantial number of them are widows, live in the rural areas, are not working, and are less educated. As some demographic indicators, such as fertility and mortality, vary by place of residence and level of education, so also do living arrangements of the elderly. The findings of this analysis are consistent with the commonly held perception from studies in other parts of the developing world that kin coresidence is more prevalent in rural areas, and there exists an inverse relationship between higher educational attainment and living with children (Palloni et al., 1999; Natividad and Cruz, 1997; DaVanzo and Chan, 1994). The results of the analysis tend to support the modernization hypothesis. It has been stated that modernization has generated widespread alterations in the traditional extended family system, and these alterations have negative impact on the support and well being of the elderly population (Mbamaonyeukwu, 2001; Mba, 2001; Apt, 1996). This is because the economic independence, which people gain as a result of formal education, for example, does not place any serious obligations on them to compensate their elderly relatives from whom they might have previously benefited.

Research on female-headed households has been growing considerably in recent years (Wright, 1999; Michael et al., 1980; Chevan and Korson, 1975; Sweet, 1972; Farley and Hermalin, 1971). In Lesotho, the growth of female-headed households is largely due to widowhood, which has in turn fuelled the propensity to live alone. The decision of the female elderly of Lesotho to live alone is not a reflection of an economic demand for privacy or autonomy as is the case in the developed countries (Michael et al., 1980; Kobrin, 1976;

Chevan and Korson, 1975). Because a substantial majority of these women did not work in formal employment to warrant enjoyment of some pension or social security scheme, high rates of extreme poverty are their lot. Their only means of livelihood is rural peasant farming for those who are strong enough to do so, and support from the dwindling number of adult relatives. In fact, it can be plausibly argued that it is because of the need for financial and welfare support from the adult children to parents and grandparents that explain the observed effects in patterns of living arrangements of the elderly females of Lesotho, as is also the case in other parts of Africa and other developing regions (Hollos and Larsen, 1997; Chan, 1997; Chan and DaVanzo, 1996; Asis et al., 1995; Kendig et al., 1992). It is conceded that many kin relations exist which are not bound by common residence. Nevertheless, it is indisputable that living together furnishes an additional, significantly different dimension to a relationship, which is recognized by people of every age, particularly in Africa. The increase in the propensity to live alone among older women in a society like Lesotho that has no universal social security or welfare scheme has serious social, economic and health consequences for the women.

It cannot be denied that women have traditionally played a major role in household earnings in some parts of Africa. For example, there is evidence to show the extent of women's contribution to household income and their investment in productive means to meet basic survival needs of the family such as food, clothing, fuel, and shelter (Ardayfio-Schandorf, 1994), while Apt (1996) has found that 65 percent of those engaged in subsistence farming are women. However, it is common knowledge that vulnerability to frailty increases with advancing age, and this is particularly true for women, given their biological and physiological make-up. And the consequences will be grave for those elderly women without any co-residing relative or an adult child to provide care.

It should be stated that census enumerations of women in the labor force are sensitive to variations of definitions, enumeration procedures, and biases in reporting, which may seriously distort estimates of the employment status of women (Mba, 2002; Cleland, 1996; Arriaga, 1994; Ewbank, 1981; Shryock and Siegel, 1976). Therefore, in a country like Lesotho where the share of agriculture in the total labor force is large, the census estimates of female labor force participation may be significantly affected by variations and errors in the reporting of female agricultural workers². On the other hand, women's so-called "physical handicap" in competition with men may be harnessed by some to explain the low female shares in jobs such as mining, metal industries, construction, truck and tractor driving, and protective services. But this can hardly account for women's relatively small representation in such employment fields as government services, architecture and engineering, or managerial and executive positions (Kingdom of Lesotho, 1996). Moreover, female labor force participation in Lesotho and many parts of Africa is negatively correlated with the levels of skill, experience, and education that jobs require and the earnings that they provide. In large part, the occupational patterns of women's shares in employment apparently reflect the culturally determined concepts of appropriate roles for women. As a result, domestic and household chores, childbearing and care-giving are viewed as women's work, which attracts no financial remuneration even though the women expend energy and time to address these

² It is also important to note that the enumerations of female labor force in the nonagricultural sector are not exempt from such errors (although they are marginally represented relative to their male counterparts), especially in the reporting of women's activity in cottage industries and other household-based manufacturing, commerce, and services.

tasks. At best, these tasks are labeled as “non-remunerative employment”. Unfortunately, the majority of the Basotho (and indeed African) women are located in this dismal domain, thereby perpetuating their poverty. A crucial point being made is that the distinction between productive and reproductive labor should underscore the fact that even work that does not have monetary exchange value is work, nevertheless. If this argument is accepted, then the definition of non-working for those who are not in paid employment, as used in this study, should be reviewed in subsequent studies.

Similarly, the present study has used place of residence (urban/rural) and education as proxies for economic development. These indicators are skewed against women since an overwhelming majority of them live in rural areas (where they engage mainly in subsistence farming) and are illiterates. Analyzing such data will lead to conclusions bearing more on these characteristics. These biases should be incorporated in future research endeavors with a view to yielding more credible estimates of these indicators.

The coming decades will witness profound changes in the social and economic life of Lesotho’s elderly population. But very little is known about this population subgroup. In particular, dramatic changes in marital status, fertility, female labor force participation, and mortality with respect to the older persons are rarely explored in research studies. Using only census household data for the study of changes in the family has been sharply criticized (Berkner, 1975). Therefore, there is a need for both quantitative and qualitative studies of the older population in the country, as they will help explain some of the observed effects in the present study. For example, the fertility decline currently being experienced by the country may have reduced the usefulness of having grandparents in the house, which may be a contributing factor to the increased tendency of Lesotho’s elderly widows to live alone. Further research will certainly throw more light on this and other phenomena.

The benefits of education are all too evident. Since the analysis has revealed that the fraction of the women who attended secondary school or higher is very small, the government should encourage more women to go beyond primary education. This is because schooling provides literacy skills, stimulates cognitive development, promotes change in values and opens up economic opportunities (Thomas, 1996; Sembajwe, 1985). These cognitive, attitudinal and socio-economic assets have a pervasive influence on women’s lives, shaping both their productive and their reproductive roles. When women are thus educated, during their old age and retirement from formal employment, they can be assured of a comfortable pension scheme that will adequately meet their needs with or without extended family support. In particular, increasing education beyond the secondary level will offset the tendency of women to lag behind men in employment opportunities in the more modern sectors of the developing economy. Unarguably, an educated woman is more likely to be gainfully employed than the illiterate in a setting like Lesotho.

Since education is one critical force driving the modernization process, an educated woman will more readily adapt to the influences of Westernization and modernization, one of which is adherence to the nuclear rather than the extended family way of life. The extended family is common to Lesotho and most African societies and constitutes the *raison d’être* of all social co-operations and responsibility, and acts as a social security for the members of the family. Pensions and health insurance from either the private or public sector cover only a handful of people involved in white-collar employment. Thus, if these functions are performed at all, the extended family is likely to be chiefly responsible for the majority of the population. On the other hand, in many developed countries, market institutions (such as

employer-provided pensions and health insurance) and tax-supported public institutions (such as public education, social security, and health insurance) substitute for the family. But the rapidly expanding number and proportion of persons aged 60 years and over in Lesotho translates into fewer younger people available to care for the older population. A substantial proportion of women are living with grandchildren and younger children who may not supply financial assistance to them. Because the findings of this study reveal that women are more likely to live with their younger children than the adult ones it is suggestive that women have additional burden of fending for the children, most of whom are likely to be in school³. Older women are in a precarious position due to a combination of fertility decline, migration, urbanization, and rising levels of labor force participation. This is because on the one hand, fertility decline will, *ceteris paribus*, lead to fewer adult children upon whom the elderly women could depend. On the other hand, migration and urbanization may lead to the abandonment of the older population in rural areas as their adult children move to and settle in cities or neighboring countries such as South Africa. It should be emphasized that the significance of the traditional role of the family as the provider of support for its members at all stages of the life cycle in Lesotho is particularly evident during old-age when the family performs a social security function. Additionally, many of them are widows and we have no evidence to show that they receive regular and meaningful remittances from their adult children living elsewhere. Therefore, while increases in female educational attainment is recommended, the extended family system that characterizes most households in Lesotho and other African countries should not be allowed to die without a viable alternative to perform the role of old age security. Failure to do this will certainly worsen the plight of the aged.

The present study has shown that there is evidence of some convergence in Lesotho to the Western (nuclear) family system, which is often expected to accompany the process of modernization and urbanization. Unfortunately, as modernization is threatening the role of the extended family, there are not as yet any non-familial institutions to take over this responsibility, as is the case in developed countries. Consequently, as we are preparing for the impending destruction of familial support systems in Lesotho and other parts of the continent, there is the urgent need to focus attention on providing support to families in caring for their elderly members, especially women, as an interim measure. As a plausible long-term goal, the government of Lesotho should begin now to lay the foundation for a strong and effective universal social security system, similar to what obtains in the West, which will in future replace the traditional extended family support system that is currently being threatened by both modernization and changes in demographic processes.

³That fewer adult children are coresiding with the elderly women might partly be attributable to out-migration of the former from rural areas for better job placements and vocational training (Sembajwe and Makatsjane, 1992).

Table 1

Percent Distribution of Elderly Women by Characteristics in Lesotho, 1996.

Characteristics	Age Group					Total	Number
	60-64	65-69	70-74	75-79	80+		
Overall	33.9	19.7	16.4	14.9	15.1	100.0	76134
<i>Marital Status</i>							
Never married	34.4	18.9	14.5	12.5	19.7	2.3	1779
Married	43.4	21.1	14.8	10.9	9.8	40.2	30574
Separated	47.1	22.7	13.3	10.4	6.5	1.8	1381
Divorced	38.6	23.2	16.0	11.8	10.4	0.9	655
Widowed	26.3	18.5	17.8	18.1	19.3	54.8	41744
<i>Place of Residence</i>							
Rural	33.8	19.5	16.5	15.0	15.2	89.0	67749
Urban	34.8	21.2	16.2	13.2	14.6	11.0	8385
<i>Education</i>							
No Education	29.1	14.7	14.1	17.7	24.4	26.6	20216
Primary	35.2	21.5	17.4	14.1	11.8	67.9	51711
Secondary	43.8	20.7	15.5	9.5	10.5	2.4	1838
Tertiary	35.9	27.8	19.4	9.9	7.0	0.4	284
<i>Employment status</i>							
Not Working	32.3	19.3	16.7	15.5	16.2	90.1	68566
Working	48.0	22.9	14.0	8.8	6.3	9.9	7568
<i>Household size</i>							
1	20.2	16.1	18.7	21.0	17.0	10.8	8232
2	29.1	18.7	18.4	17.2	16.6	12.6	9577
3	32.3	20.3	17.3	15.5	14.6	11.4	8674
4	35.2	22.0	16.6	13.6	12.6	11.3	8616
5	36.9	21.0	16.4	13.4	12.3	11.4	8669
6+	38.0	19.7	15.0	13.1	14.2	42.5	32366
<i>Surviving Children by age</i>							
0-4	29.3	15.0	10.8	9.3	35.6	14.2	39516
5-14	27.7	16.1	12.5	10.9	32.8	35.9	100028
0-14	28.2	15.7	12.0	10.3	33.8	50.1	139544
15-29	30.8	15.3	11.3	10.0	32.6	38.0	105707
30-39	30.5	18.4	13.1	10.6	27.4	11.9	33322
15-39	30.7	16.5	12.0	10.2	30.6	49.9	139029

Source: 1996 Lesotho Census Data File.

Note: The *total* represents the percent of the overall elderly women belonging to specified characteristic. The sum for *Education* characteristic is not equal to 100 because of “not stated” category.

Table 2

Percentage Distribution of Living Arrangement of Elderly Women of Lesotho, 1996.

Arrangement	Age Group					Total	Number
	60-64	65-69	70-74	75-79	80+		
Living alone	20.2	16.1	18.7	21.0	24.0	10.9	8271
Living with spouse only	40.1	22.1	18.1	12.5	7.2	3.5	2652
Living with children only	39.4	20.9	15.4	13.6	10.7	10.7	8118
Living with grand-children only	19.8	18.6	20.5	21.3	19.8	9.5	7215
Living with others only	24.5	18.4	19.2	18.2	19.7	6.7	5104
Living with spouse and children only	53.9	22.5	11.4	6.6	5.6	6.6	5057
Living with children and others only	34.6	19.7	16.3	13.4	16.0	10.5	8004
Living with spouse and others only	36.4	22.6	15.2	11.3	14.5	3.1	2346
Living with spouse and grandchildren only	38.2	25.3	19.6	11.6	5.3	2.8	2190
Living with spouse, children and others only	33.5	16.9	14.5	15.2	19.9	15.4	11692
Living with spouse, children, grandchildren and others	34.7	19.4	16.2	14.9	14.8	20.3	15485

Source: 1996 Lesotho Census Data File.

Note: The *total* represents the overall percent of the elderly women co-residing according to the specified living arrangement to the total elderly population. Total number of elderly females aged 60 years and over = 76134.

Table 3

Percentage Distribution of Lesotho Elderly Women's Relationship to the Household Head, 1996.

Relationship	Age Group					Total	Number
	60-64	65-69	70-74	75-79	80+		
Head	30.2	20.0	17.9	16.8	15.1	55.8	42488
Spouse	52.7	23.2	13.4	6.9	3.8	23.9	18173
Child	38.5	16.2	13.4	11.3	20.6	1.1	821
Parent/Parent-in-law	18.3	12.9	16.3	20.4	32.1	12.1	9246
Other Relatives	23.9	16.4	15.9	17.5	26.3	6.5	4920
Others unrelated	41.2	20.2	13.0	12.4	13.2	0.6	486

Source: 1996 Lesotho Census Data File.

Table 4.

Socio-economic Differentials in Living Arrangements of the Elderly Females of Lesotho, 1996.

Characteristics	Percent living alone	Percent living with spouse	Percent living with adult child	Percent head of household
<i>Marital Status</i>				
Never married	3.2	NA	0.0	2.0
Married	17.2	NA	31.8	19.6
Separated	2.9	NA	2.0	2.4
Divorced	1.3	NA	0.8	1.1
Widowed	75.4	NA	65.4	74.9
<i>Place of Residence</i>				
Rural	91.5	91.6	93.2	89.4
Urban	8.5	8.4	6.8	10.6
<i>Education</i>				
No Education	32.6	28.2	33.1	26.6
Primary	64.3	66.9	63.9	68.9
Secondary	1.4	2.4	2.4	2.1
Tertiary	0.3	0.2	0.6	0.4
<i>Employment status</i>				
Not Working	90.1	90.7	92.1	88.9
Working	9.9	9.3	7.9	11.1
Total	10.9	3.5	49.9	55.8

Source: 1996 Lesotho Census Data File.

Note: The sum for *Education* characteristic is not equal to 100 because of “not stated” category.

NA=Not Applicable.

Table 5. Logistic Regression Coefficients Predicting the Likelihood of the Elderly Woman Living Alone and with Spouse only, Lesotho, 1996.

Variable	Living Alone				Living with Spouse only			
	Model I Unadjusted	Model II Adjusted (Model I + Educ.)	Model III Adjusted (Model II + Resid.)	Model IV Adjusted (Model III + other controls)	Model I Unadjusted	Model II Adjusted (Model I + Educ.)	Model III Adjusted (Model II + Resid.)	Model IV Adjusted (Model III + other controls)
<i>Age</i>								
60-64 (Ref.)	na	na	na	na	na	na	na	na
65-69	0.162**	0.139*	0.291**	0.288*	-0.292	-0.118	-0.344**	-0.311*
70-74	0.390**	0.311*	0.166**	0.172**	-0.078	-0.065	-0.211*	-0.209**
75-79	0.914**	0.744**	0.581**	0.665*	-0.052	-0.044	-0.064	-0.048
80+	1.570**	1.222**	1.204**	1.274*	-0.031	-0.029	-0.049	-0.033
<i>Education</i>								
No Education	na	-0.211	-0.244	-0.178	na	0.333*	0.494**	0.378*
Primary (Ref.)	na	na	na	na	na	na	na	na
Secondary	na	0.128*	0.095	0.133**	na	0.119	0.155	0.107
Higher	na	0.277**	0.111*	0.289*	na	-0.210	-0.244*	-0.231**
<i>Residence</i>								
Urban	na	na	-0.355**	-0.301*	na	na	-0.422**	-0.391*
Rural (Ref.)	na	na	na	na	na	na	na	na
<i>Marital status</i>								
Never married	na	na	na	-0.029	na	na	na	na
Married (Ref.)	na	na	na	na	na	na	na	na
Separated	na	na	na	-0.022	na	na	na	na
Divorced	na	na	na	-0.019	na	na	na	na
Widowed	na	na	na	0.877**	na	na	na	na
<i>Employment status</i>								
Not working (Ref.)	na	na	na	na	na	na	na	na
Working	na	na	na	0.041	na	na	na	-0.311*
<i>Household size</i>								
<6 (Ref.)	na	na	na	na	na	na	na	na
6+	na	na	na	na	na	na	na	-0.944*
-2 log likelihood	599.2	799.9	624.9	682	744.8	788.5	866.8	898.5
Model X ² (p-value)	101.1 (0.00)	173.2 (0.00)	147.7 (0.00)	162.3 (0.00)	166.5 (0.00)	178.3 (0.00)	177.3 (0.00)	188.1 (0.00)

*p<.05, ** p<.01

Note: P-values are based on the Wald statistic; na =not applicable. Exponentiating these log odds produces the odds ratios for a particular outcome. For example, the elderly women aged 75-69 years would be 2.5 times more likely than those aged 60-64 to live alone (odds ratio of 2.5, since $e^{0.914}=2.5$).

Table 6 Logistic Regression Coefficients Predicting the Likelihood of the Elderly Woman Living with Spouse and Children, and with Other Relatives, Lesotho, 1996.

Variable	Living with Spouse and Children				Living with Other Relatives			
	Model I Unadjusted	Model II Adjusted (Model I + Educ.)	Model III Adjusted (Model II + Resid.)	Model IV Adjusted (Model III + other controls)	Model I Unadjusted	Model II Adjusted (Model I + Educ.)	Model III Adjusted (Model II + Resid.)	Model IV Adjusted (Model III + other controls)
<i>Age</i>								
60-64 (Ref.)	na	na	na	na	na	na	na	na
65-69	-0.022	-0.034	-0.168*	-0.179**	0.113	0.188*	0.223**	0.423*
70-74	-0.049	-0.054	-0.217**	-0.322*	0.343**	0.404**	0.502*	0.611**
75-79	-0.037	-0.044	-0.125**	-0.139**	0.919**	0.970*	1.210**	2.311*
80+	0.135	0.181*	0.211*	0.499**	1.707*	1.777**	1.993**	4.115**
<i>Education</i>								
No Education	na	0.141**	0.158**	0.239*	na	0.076	0.092	0.114
Primary (Ref.)	na	na	na	na	na	na	na	na
Secondary	na	-0.182*	-0.166*	-0.191**	na	-0.022	-0.029	-0.037
Higher	na	-0.210*	-0.244**	-0.411*	na	-0.149*	-0.162**	-0.312*
<i>Residence</i>								
Urban	na	na	0.222*	0.612**	na	na	-0.217*	-0.425**
Rural (Ref.)	na	na	na	na	na	na	na	na
<i>Marital status</i>								
Never married	na	na	na	na	na	na	na	0.668*
Married (Ref.)	na	na	na	na	na	na	na	na
Separated	na	na	na	na	na	na	na	0.344**
Divorced	na	na	na	na	na	na	na	0.166**
Widowed	na	na	na	na	na	na	na	0.995*
<i>Employment status</i>								
Not working (Ref.)	na	na	na	na	na	na	na	na
Working	na	na	na	-0.350**	na	na	na	-0.229**
<i>Household size</i>								
<6 (Ref.)	na	na	na	na	na	na	na	na
6+	na	na	na	0.533**	na	na	na	-0.128*
-2 log likelihood	616.6	704.0	880.9	976.7	799.8	822.3	909.7	977.8
Model X ² (p-value)	133.1 (0.00)	150.9 (0.00)	167.3 (0.00)	183.5 (0.00)	186.5 (0.00)	211.9 (0.00)	241.5 (0.00)	303.3 (0.00)

*p<.05, ** p<.01

Note: P-values are based on the Wald statistic; na =not applicable. Exponentiating these log odds produces the odds ratios for a particular outcome. For example, the elderly women aged 80+ years would be 5.5 times more likely than those aged 60-64 to live with other relatives (odds ratio of 5.5, since $e^{1.707}=5.5$).

References

- Adeokun, L.A. 1981. Demographic Determinants of Intra Family Support for the Aged in Nigeria. Paper presented at Experts Meeting of the International Centre for Social Gerontology, Versailles, May 4-6.
- Apt, N. A. 1996. *Coping with Old Age in a Changing Africa: Social Change and the Elderly Ghanaian*. Averbury Aldeshot, Brookfield.
- Ardayfio-Schandorf, E. 1994. *Family and Development in Ghana*. Ghana Universities Press, Accra.
- Asis, M., Domingo, D. Knodel, J. and Mehta, K., 1995. Living Arrangements in Four Asian Countries: A Comparative Perspective. *Journal of Cross-Cultural Gerontology* vol. 10, pp.145-162.
- Bachi, R. 1951. The Tendency to Round Off Age Returns: Measurement and Corrections. *Bulletin of the International Statistical Institute*, Vol. 33, No. 4, pp.195-222. Calcutta. Proceedings of the 27th Session.
- Berkner, L. 1975. The use and Misuse of Census Data for the Historical Analysis of Family Structure. *Journal of Interdisciplinary History* vol. 5, pp. 721-738.
- Bicego, G. and Ahmad, O.B. 1996. *Infant and Child Mortality*. DHS Comparative Studies No. 20. Institute for Resource Development/Macro Systems, Inc. Columbia, Maryland.
- Blacker, J. 1994. Some Thoughts on the Evidence of Fertility Decline in Eastern and Southern Africa. *Population and Development Review* vol. 20 No. 1, pp.200-205.
- Caldwell, J.C. and P. Caldwell, 1993. The South African Fertility Decline. *Population and Development Review* vol. 19 No. 2, pp.225-262.
- Caldwell, J.C., Orubuloye, I.O. and P. Caldwell, 1992. *Africa's New Kind of Fertility Transition*. Health Transition Working Paper No. 13. Center for Epidemiology and Population Health, Australian National University, Canberra, Australia.
- Cameroon, L. 2000. The Residency Decision of Elderly Indonesians: A Nested Logit Analysis. *Demography* vol. 37, pp.17-27.
- Casterline, J.B., 1999. *The Onset and Pace of Fertility Transition: National Patterns in the second half of the Twentieth Century*. Population Council Working Papers No. 128. New York.
- Chan, A. 1997. An Overview of the Living Arrangements and Social Support Exchanges of Older Singaporeans. *Asia-Pacific Population Journal* vol.12, No. 4, pp.35-50.
- Chan, A. and DaVanzo, J. 1996. Ethnic Differences in Parents' Coresidence with Adult Children in Peninsular Malaysia. *Journal of Cross-Cultural Gerontology* vol. 11, pp.29-59.
- Chan, H. and Lee, R.P. 1995. Hong Kong Families: At the Crossroads of Modernism and Traditionalism. *Journal of Comparative Family Studies* vol. 24, No. 1, pp.83-99.
- Chen, C. 1996. Living Arrangements and Economic Support for the Elderly in Taiwan. *Journal of Population Studies* vol. 17, pp.59-81.
- Chevan, A. and Korson, J.H. 1975. Living Arrangements of Widows in the United States and Israel, 1960 and 1961. *Demography*, vol. 12, No. 3, pp. 505-518.
- Chimere-Dan, O. 1998. Celebrating the Onset of Fertility Decline in Africa, *African Population Studies*, vol. 13, No. 1, pp.6-7.
- Cleland, J. 1996. Demographic Data Collection in Less Developed Countries 1946-1996. *Population Studies*, Vol. 50, pp.433-450.

- DaVanzo, J. and Chan, A. 1994. Living Arrangements of Older Malaysians: Who Coresides with their Adult Children? *Demography* vol. 31, pp.95-113.
- Epprecht, M. 2000. *This Matter of Women is Getting Very Bad: Gender, Development and Politics in Colonial Lesotho*. University of Natal Press, Pietermaritzburg.
- Ewbank, D.C. 1981. *Age Misreporting and Age-Selective Under-enumeration: Sources, Patterns and Consequences for Demographic Analysis*. Washington, D.C., National Academy Press.
- Farley, R. and Hermalin, A.I., 1971. Family Stability: A Comparison of Trends Between Blacks and Whites. *American Sociological Review* vol. 36, pp. 1-17.
- Fonchingong, C. 1999. Structural Adjustment, Women and Agriculture in Cameroon. *Gender and Development* vol. 7, No. 3, pp. 73-79.
- Gill, S.J. 1993. *A Short History of Lesotho: From the Late Stone Age until the 1993 Elections*. Morija Museum and Archives, Morija, Lesotho.
- Goode, W. J. 1963. *World Revolution and Family Patterns*. Free Press of Glencoe. New York.
- Holland, D.W, Plath, J.C., Carvallo, J.W. 1988. *Labour Migration and Agricultural Development in Lesotho*. Ministry of Agriculture, Maseru, Lesotho.
- Hollos, M. and Larsen, U. 1997. From Lineage to Conjuality: The Social Context of Fertility Decisions among the Pare of Northern Tanzania. *Social Science and Medicine* vol. 45, No. 3, pp.361-372.
- Jarvik, L.F. (ed.) 1978. *Aging into the 21st Century: Middle-Agers Today*. Gardner Press, Inc., New York.
- Kattak, S.G. 1999. The Repercussions of Nuclearization on Pakistani Women. *Development* vol. 42, No. 2, pp.71-73.
- Kendig, H.L., Hashimoto, A. and Coppard, L.C. (eds.), 1992. *Family Support for the Elderly*. New York: Oxford University Press.
- Kingdom of Lesotho, 1996. *1996 Population Census: Analytical Report*. Bureau of Statistics and UNFPA, Maseru, Lesotho.
- Kingdom of Lesotho, 1987. *1986 Population Census: Preliminary Results..* Bureau of Statistics, Maseru, Lesotho.
- Kleinbaum, D., Kupper, L., Muller, K. and Nizam, A. 1998. *Applied Regression Analysis and Other Multivariable Methods*. Brooks/Cole Publishing Company, Pacific Grove, California.
- Knodel, J. and Chayovan, N. 1997. Family Support and Living Arrangements of Thai Elderly: An Overview. *Asia-Pacific Population Journal* vol.12, No. 4, pp.51-68.
- Kobrin, F.E., 1976. The Fall in Household Size and the Rise of the Primary Individual in the United States. *Demography* vol. 13, No. 1, pp. 127-138.
- Leung, J.C. 1997. Family Support for the Elderly in China: Issues and Challenges. *Journal of Aging and Social Policy* vol. 9, No. 3, pp.87-101.
- Lynch, S. 1998. Who Supports Whom? How Age and Gender Affect the Perceived Quality of Support from Family and Friends. *The Gerontologist*, vol. 38, No. 2, pp. 231-238.
- Martin, L.G. 1989. Living Arrangements of the Elderly in Fiji, Korea, Malaysia, and the Philippines. *Demography* vol. 26, pp.627-643.
- Michael, R.T., Fuchs, V.R. and Scott, S.R. 1980. Changes in the Propensity to Live Alone: 1950-1976. *Demography*, vol. 17, No. 1, pp.39-56.
- Mba, C.J. 2002. Assessing the Reliability of the 1986 and 1996 Lesotho Census Data. *Journal of Social Development in Africa*. (in press).

- Mba, C.J. 2001 . Nigeria's Ageing Population: A Call for Attention. *BOLD Quarterly Journal of the International Institute on Ageing*, vol. 12, No. 1, pp. 15-24.
- Mbamaonyekwu, C.J. 2001. Africa's Ageing Populations. *BOLD Quarterly Journal of the International Institute on Ageing*, vol. 11, No. 4, pp. 2-7.
- Mbamaonyekwu, C.J., 2000. Signs of Fertility Transition in Nigeria. *African Population Studies*, vol. 15, No. 1, pp.23-42.
- Moon, M. and Mulvey, J. 1996. *Entitlements and the Elderly: Protecting Promises, Recognizing Realities*. The Urban Institute Press. Washington, D.C.
- Natividad, J.N. and Cruz, G.T. 1997. Patterns in Living Arrangements and Familial Support for the Elderly in the Philippines. *Asia-Pacific Population Journal* vol.12, No. 4, pp.17-34.
- Ofstedal, M.B., Knodel, J. and Chayovan, N. 1999. Intergenerational Support and Gender: A Comparison of Four Asian Countries. *Southeast Asian Journal of Social Science* vol. 27, pp. 21-42.
- Organisation for Economic Co-operation and Development (OECD), 1998. *Maintaining Prosperity in an Ageing Society*. OECD, Paris.
- Orubuloye, I.O. 1995. The Demographic Situation in Nigeria and Prospects for Fertility Transition. *Journal of International Development* vol. 7 No. 1, pp.135-144.
- Palloni, A., De Vos, S. and Palaez, M. 1999. *Aging in Latin America and the Caribbean*. Working Paper No. 99-02. Center for Demography and Ecology, University of Wisconsin-Madison.
- Pampel, F. 1998. *Aging, Social Inequality, and Public Policy*. Pine Forge Press, California.
- Reay, B. 1996. Kinship and the Neighborhood in Nineteenth-Century Rural England: The Myth of the Autonomous Nuclear Family. *Journal of Family History* vol. 21, No. 1, pp.87-104.
- Sansom, B. 1974. Traditional Economic Systems. In Hammond-Tooke, D. (ed.), *The Bantu-speaking Peoples of Southern Africa*. Routledge and Kegan Paul Publishers, London, 135-176.
- Scharlach, A.E. 1994. Caregiving and Employment: Competing or Complementary Roles? *The Gerontologist* vol. 34, pp.378-385.
- Sembajwe, I. and Makatsjane, T., 1992. Migration and Rural Crisis in a Labour Reserve Economy: Lesotho in Toure, M. and Fadayomi, T.O. (eds). *Migration, Development and Urbanization Policies in Sub-Saharan Africa*. Council for the Development of Social Science Research in Africa, pp.237-276.
- Sembajwe, I., 1985. *Impact of Rapid Population Growth on School Enrollments in Southern Africa*. Working Papers in Demography No. 5, Department of Statistics, Demography Unit, National University of Lesotho, Maseru.
- Serow, W.J. and Cowart, M.E., 1998. Demographic Transition and Population Aging with Caribbean Nation States. *Journal of Cross-Cultural Gerontology* vol. 13, No. 3, pp.201-213.
- Shryock, H. and Siegel, J.S. 1976. *The Methods and Materials of Demography*. (Condensed Edition by Stockwell, E.G.). Academic Press Inc., New York.
- Stevens, R.J. 1967. *Lesotho, Botswana and Swaziland: the former High Commission Territories in Southern Africa*. Pall Mall Press, London.
- Sweet, J.A. 1972. The Living Arrangements of Separated, Widowed, and Divorced Mothers. *Demography*, vol. 9, No. 1, pp.143-157.

- Thomas, D. 1996. Education Across Generations in South Africa. *American Economic Review*, vol. 86, No. 2, pp.330-334.
- Thomas, N. and Price, N. 1999. The Role of Development in Global Fertility Decline. *Futures* vol. 31, No. 8, pp.779-802.
- Treas, J. and Logue, B. 1986. Economic Development and the Older Population. *Population and Development Review* vol. 12, No. 4, pp.645-673.
- United Nations, 2001a. *World Population Prospects, The 2000 Revision: Highlights*. Population Division, Department of Economic and Social Affairs, ESA/P/WP.165, New York.
- United Nations, 2001b. *World Population Prospects, The 2000 Revision Vol. I: Comprehensive Tables*. Department of Economic and Social Affairs, Population Division, ST/ESA/SER.A/198. New York.
- United Nations, 1999a. *World Population Prospects, The 1998 Revision Vol. I: Comprehensive Tables*. Department of Economic and Social Affairs, Population Division, ST/ESA/SER.A/184. New York.
- United Nations, 1999b. *Socio-Economic Status and Living Arrangements of Older Persons in Finland*. United Nations Economic Commission for Europe; Population Activities Unit.
- United Nations, 1998. *Living Arrangements of Older Persons in Canada: Effects on their Socio-economic Conditions*. United Nations Economic Commission for Europe; United Nations Population Fund.
- United Nations, 1991. *Ageing and Urbanization*. Department of International Economic and Social Affairs, ST/ESA/SER.R/109. New York.
- United Nations, 1973. *The Determinants and Consequences of Population Trends*, New York.
- UNDP/FAO, 1992. *Lesotho: Project Findings and Recommendations*. The Food and Agriculture Organization, Rome.
- Vimard, P. 2000. Demographic Policies, Family Planning and Fertility Transition in Africa. *CEPED NEWS* vol. 8 Jul-Dec., pp.4-6.
- World Bank, 2000. *World Development Indicators database, July, 2000*, The World Bank Group.
- World Bank, 1994. *Averting the Old Age Crisis*. Oxford University Press, New York.
- World Health Organization (WHO), 2000. *Statistical Data from the World Health Report 2000*. WHO Headquarters Office, Geneva, Switzerland.
- Wright, C. 1999. Female Singlehood and Urban Space in Lesotho. *Review of Southern African Studies* vol. 3, No. 2, pp.75-102.
- Zuberi, T. 2001. Introduction. African Censuses in the 21st Century. *Fourth African Census Analysis Project Workshop*. Social Change and the Demography of Africa: Evidence from the Analysis of Census Data. Dakar, Senegal, January 15-17.

Acknowledgements

This research was conducted while Chuks J. Mba (Mbamaonyeukwu, C.J.), Ph.D was a visiting scholar with the African Census Analysis Project (ACAP) at the Population Studies Center, University of Pennsylvania. Support for this research was provided by the Andrew W. Mellon Foundation grant to ACAP. The author wishes to thank Prof. Tukufu Zuberi for assistance and the anonymous reviewers for their useful comments, but assumes sole responsibility for the views expressed in the paper.

ⁱ MBA, Ph.D. Address: United Nations Regional Institute for Population Studies, University of Ghana, P.O. Box 96, Legon, Ghana. Email: chuksmba@hotmail.com