

**DETERMINANTS OF AGE AT FIRST MARRIAGE
IN KENYA: A COMPARATIVE ANALYSIS
BETWEEN MEN AND WOMEN**



by

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DECLARATION

This project is my original work and has not been presented before for the award of a degree in any other university

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DEDICATION

I wish to dedicate this piece of work first to God almighty for the divine support and guidance, to My wife Dorothy for accepting to solemnize our marriage which motivated me to pursue the topic, to my dad Joseph Mulama who has always supported me and wished me well and to my mum Marcellah Otipa whose childhood encouragement ignited hope in me that has always kept me going.

ABSTRACT

The objective of the study was to examine the determinants of age at first marriage among men and women in Kenya. Specifically, the study sought to establish the timing of marriage among men and women in Kenya; the social economic, socio cultural and demographic factors determining age at marriage in Kenya; and gender variations in the association between marriage timing and socio-economic, socio-cultural demographic variables; and to determine whether there is any variation in the outlined associations

To achieve the above objectives, several hypotheses were tested by applying the survival models to male and female data drawn from the 2003 Kenya Demographic and Health Survey. The study was guided by the 1988 United Nations framework for the study of marriage timing.

The dependent variable was duration to first marriage measured in single years. Eight explanatory variables were utilized in the study and these included; highest level of education completed, type of place of residence, place of residence (region), wealth index, employment status, type of religion, ethnic group and age at first sex

Life table methods were utilized in the analysis to estimate the differentials in the median age at first marriage and establish the factors influencing age at first marriage among men and women in Kenya. Life table analysis considered ever married men and women separately and estimated their median ages as 24.1 and 19.0 respectively

Important conclusions can be drawn from this study. Differentials in median age at first marriage by various background characteristics and by sex are evident. For instance men had a higher median age at first marriage. Also educated men and women had a higher median age at first marriage.

Multivariate life table (Cox hazard regression) results revealed that level of education, place of residence, region of residence, wealth index, employment status, type of religion, ethnicity and age at first sex are significantly associated with age at first marriage among women. All the

above variables apart from place of residence and employment status were significant among men. The findings also reveal gender variation in the associations.

The study recommends policies to put more emphasis on girl child education to prevent the risk of early marriages.

At program level, the study recommends formation and/or strengthening of programs targeting youth sexuality with a focus on reducing age at first sex. The study also proposes programs to address poverty particularly among the poor male and female youth which is a paramount catalyst for early marriage.

Lastly, the study recommends further research specifically longitudinal and qualitative to help focus attention on important unstudied nuptiality areas such psychosocial or individual factors influencing marriage in the marriage market

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CHAPTER ONE

INTRODUCTION AND STATEMENT OF THE PROBLEM

1.1 Introduction

The study examines age at first marriage among men and women in Kenya using a comparative analysis approach.

In populations in which marriage is nearly universal, age at marriage has a strong influence on the overall fertility and population growth (Bloom et al., 1984). Younger ages at marriage imply higher aggregate rates of fertility and higher rates of population growth (Bloom et al., 1984). A number of studies have documented the contribution of changes in the timing of marriage to fertility transitions, both historically in developed countries and contemporarily in developing nations (Coule and Treadway, 1986; Casterline, 1994, Rosero-Bixby, 1996) Early marriage is associated with a lower rate of school attendance, lower social status and lower rate of labour force participation for females (Mensch et al, 2005). Van de Walle (1993) argues that, understanding nuptiality change can enhance the understanding of social change. This is because the marriage process reflects the way life is organized and functions in a particular culture (Mulhotra, 1997).

It is argued that countries with high percentage of child marriage are more likely to experience extreme and persistent poverty (International Center for Research on Women, 2004). Moreover, marriage during the teenage years is harmful for women, since it curtails schooling. Additionally, it limits women's autonomy as they are likely to marry older men who may not allow negotiation for healthy sexual relations. (Clark, 2004; Jejeebhoy, 1995; UNICEF, 2001).

Studies have found a strong negative correlation between age at marriage and fertility (Karim, 1997). In addition in Sub-Saharan Africa, most of the recent data has shown that there is negative association between age at marriage and the number of years spend in school (Shapiro and Tambashe, 1999).

Conversely, late age at marriage among men arising from limited resources, may not be viewed as desirable by young men. It may instead be a source of frustration, particularly where premarital sex is not condoned (Mensch et al., 2005):

Age of marital formation is influenced by social norms and expectations regarding the roles of spouses and parents. These factors are changing with globalization, urbanization and rising educational attainment (Mensch et al., 2005).

1.2 Problem Statement

The timing and incidence of nuptiality is a crucial determinant of the overall fertility and population growth. In countries where first marriage is nearly universal with modest contraceptive use, age at first marriage has a strong influence on fertility and population growth (Bloom et al., 1984).

Trussel et al. (1979) in their model developed to analyze the effect of nuptiality on fertility, show that in a population with little contraceptive use where fertility occurs within marriage, the effect of fertility results from a reduction of exposure of women at younger ages. The fertility of a particular age group is the product of the proportion married at that age and the rate of marital fertility at that age. The model indicates that for such "natural fertility" populations (most developing countries), the effect on the total fertility rate would be a 5 to 6 percent decline with each year of increase in age at marriage.

The drive to undertake this study have been motivated by the empirical evidence that males play a dominant role in decisions regarding child bearing and fertility regulation in traditional Sub-Saharan societies yet they are neglected in family studies (Caldwell and Caldwell, 1987).

Findings in a study of population dynamics in Africa suggest that information on reproductive careers of men is crucial to an understanding of the demographic changes (Bledsoe and Cohen, 1993).

Male fertility appears to be studied much less often than female fertility. Male study is necessary because factors affecting male fertility are not necessarily the same as those affecting female fertility. Given the potential impact of parenthood on the early career of young men, it is important to understand factors that affect early entry into marriage and parenthood (Michael and Tuma, 1985). Descriptive research on age at first marriage among men is rare, and studies that examine its determinants are practically nonexistent (Xenos and Gutliano, 1992).

Entry into marital state is not only an important life course for transition for men, but, as is the case for women's age at marriage; it's a fundamental reflection of family structure, gender relations and social change (Caldwell et al., 1983). When, why and how men begin their marriage lives is likely to define their sexual activity, fertility behavior, as well as their family obligations, conjugal roles, bases of financial and social support, and future options, though it may do this in a manner different from women. (Cherlin and Chamratrithirong, 1988).

Focusing on differences in marriage processes for men and women can give us insight into gender roles and expectations in the society under consideration. This focus is necessary in the light of the emphasis placed on by most theories of social change as an important route through which processes of modernization make gender relations more egalitarian (Domingo and King, 1992).

Under the influence of urbanization and westernization, it is argued that, family concerns diminish, and exposure to education and employment increases, resulting in greater independence for the younger generation, especially women. The gains made by women are thought to be reflected in more egalitarian and conjugally oriented marriages. Empirical research has rarely tested the validity of these arguments by comparing marriage behavior of males and females in developing countries. The limited research that does exist lends doubt to the universal applicability of these arguments (William, 1990).

1.3 Research questions

Is there any association between timing of marriage and socio-economic/cultural/demographic variables?

Does the association between timing of marriage and socio-economic/cultural/demographic variables differ among men and women if it does exist?

1.4 Objectives of the study

1.4.1 Main objective

To examine the determinants of age at first marriage among men and women in Kenya.

1.4.2 Specific objectives

To determine the timing of marriage among men and women in Kenya.

To determine whether there is any association between marriage timing and socio-economic cultural/demographic variables.

To determine whether there is any gender variation in the association between marriage timing and socio-economic/cultural/demographic variables in Kenya.

1.5 Justification

The timing and incidence of marriage is important in explaining fertility trends in Kenya, since universal marriages are experienced and contraceptive use is modest at 39% (KDHS, 2003). Patterns of first marriage, marital dissolution and remarriage collectively play a dominant role in the determination of fertility levels and population growth.

Research on marriage timing in developing countries has been motivated largely by a demographic interest in the initiation of reproduction, and thus it has been largely limited to women. Descriptive research on age at marriage for men is rare, and studies that examine its determinants are practically nonexistent (Casterline, et al., 1986). Entry into the marital state is not only an important life course transition for men, but, as is the case for women's age at marriage; it is a fundamental reflection of family structure, gender relations, and social change (Caldwell et al., 1983). When, why, and how men begin their marriage lives is likely to define their sexual activity, fertility behavior, as well as their family obligations, conjugal roles, bases of financial and social support, and future options, although it may do this in a manner different from women (Thornton et al., 1984). Focusing on differences in marriage processes for men and women can give us insight into gender roles and expectations in the society under consideration. This focus is necessary in the light of the emphasis placed on by most theories of social change as an important route through which processes of modernization make gender relations more egalitarian (Domingo and King, 1992).

The male factor has been neglected in studies on marital timing in Kenya. Empirical research of the male-female differences is requisite for policy planning.

The study will therefore provide crucial information for population policy planning and implementation. Gender based approach to policy planning with regard to fertility will have an empirical basis.

1.6 Scope and Limitations

1.6.1 Scope

Secondary data from 2003 KDHS with a sample of 8,195 women aged 15-49 and 3,578 men aged 15-54 selected from 400 clusters throughout Kenya are covered in the study. Sub samples of 1,994 ever married men and 5,729 women will be considered in life table analysis while the entire sample (3,578 men and 8,195 women) will be considered in Cox hazard model separately for male and female due to its ability to censor out cases that have not undergone first marriage.

1.6.2 Limitations

The findings of this study may not conclusively provide explanation for existing nuptial patterns in Kenya. The socio-economic variables used (available in the 2003 KDHS male and female databases) are limited in ability to explain individual factors i.e. psychological and biological factors. For example, it may not be possible to tell whether young Kenyans are less able to marry because there are more obstacles to marriage or because marriage has become a relatively less attractive option than non marriage. Obstacles could be economic hardships witnessed lately or an imbalance in the sex composition of the marriage market (1999 census revealed that there are more women than men).

However, the study will provide robust proxy indicators that may inform policy quite appropriately.

To get a deeper understanding of the marriage patterns and differentials in Kenya, a national longitudinal survey focusing on factors within and outside marriage of young men and women is requisite. Studies based on longitudinal data have effectively managed to show the effect of individual factors on age at first marriage (Oropesa et al., 1994).

CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Literature review

Despite the upsurge in the incidences of non-marital child bearing, most fertility in the developing countries still occur within marital unions (United Nations, 1988). Consequently, the age at which women enter into marital unions and the duration they remain in such unions directly influences their fertility rates (United Nations, 1988). The earlier the age at marriage, the earlier initiation of child bearing, which in turn implies either a higher level of lifetime fertility or a longer period of exposure to the risk of unwanted child bearing once the desired family size have been achieved (Trussel and Reinis, 1983). Differences in age at marriage have been shown to account for a significant proportion of variation in fertility across populations and changes in age at first marriage can therefore, help explain changes in fertility (Adlakha et al., 1991; Bloom and Reddy, 1984, Bongaarts and Potter, 1983; United Nations, 1987).

Marriage patterns, additionally, provide useful indicators of the situation of women (United Nations, 1984) and more recently, marriage patterns among other forms of sexual union have increasingly become important for the study of HIV AIDS transmission and its potential impact (Van de Walle, 1993).

According to Trussel, Menken, and Coale (1979) in their model developed to analyze the effect of nuptiality on fertility, in a population with little contraceptive use where fertility occurs within marriage, the effect of fertility results from a reduction of exposure of women at younger ages. The fertility of a particular age group is the product of the proportion married at that age and the rate of marital fertility at that age. The model indicates that for such "natural fertility" populations (most developing countries), the effect on the total fertility rate would be a 5 to 6 percent decline with each year of increase in age at marriage.

In fact, a recent analysis of the contribution of increased age at first marriage to the decline of the total fertility rate indicates that changes in the proportion of women married at younger ages have been more responsible for declining fertility in some African countries Kenya included

(Adlakha et al., 1991). Consequently, the postponement of marriage is thought to have had a more demographic impact in Kenya over the last decade than increased use of contraception (Adlakha et al., 1991).

Younger ages at birth are typically associated with younger ages at the achievement of desired family size, and as a consequence, a longer period of exposure to unwanted births if fertility control is imperfect (Trussel and Reinius, 1983).

Recent studies in sub-Saharan Africa, show that wider age differences between sexual partners lead to greater HIV vulnerability for young women (Gregson et al., 2002), presumably through their correlation with male wealth advantage and, hence, the lower bargaining power of females (Quisumbing et al., 2003).

Delaying men and women's age at marriage, if it delays sexual intercourse, should reduce the age-specific rate of HIV infection among young women. In 13 of 24 sub-Saharan African countries where the probability of marrying by age 18 has declined significantly in the last 20 years, the overall proportion of women having sex by age 18 also declined significantly (Mensch et al., 2005).

A study done in Kenya and Zambia found out that married adolescent girls in urban centers have higher rates of HIV infection than do sexually active unmarried girls. It was found out that early marriage increases coital frequency, decreases condom use, and virtually eliminates girls ability to abstain from sex. Additionally, husbands of married girls are about three times more likely to be HIV-positive than are boyfriends of single girls. Although married girls are less likely than single girls to have multiple partners, this protective behavior may be outweighed by their greater exposure via unprotected sex with partners who have higher rates of infection. These results challenge commonly held assumptions about sex within marriage (Clark, 2004).

There is evidence that the timing of childbearing has an impact on variables other than fertility itself. Infant and child mortality tend to be higher among children born to women under age 20 and over age 35. Likewise, maternal morbidity is greater among very young and old mothers (Hobcraft, 1987; Nortman, 1974).

An analysis of DHS data from 21 sub-Saharan African countries found that improvements in child survival are associated with later age at marriage (LeGrand and Barbieri, 2002). This

finding suggests that once awareness about the decline in mortality has spread throughout a population, couples will delay marriage (Mensch et al., 2005).

Trussel and Reinis (1983) further argue that in some societies, marriage inhibits further educational attainment or employment. Evidence from the United States suggests that women who have early first births experience more closely spaced subsequent births, face greater marital instability, are more poorly educated and have fewer assets and lower incomes later in life (Trussel and Abowd, 1982)

On the other hand, significantly lower migration and mortality rates are observed for married men, while among women, marriage is a major factor in residential mobility (United Nations, 1988).

Becker (1981) in his framework on marriage argues that marriage is an exchange of men's economic resources for women's domestic skills. If this is the case, then the most important event in determining when marriage will occur between courting partners is when a man finds a job. Consequently, delay in employment will lead to delay in marriage.

Marriage is also viewed as a means of attaining adulthood status (a right of passage to adulthood). It therefore implies that other events of attaining adulthood such as living independently of parents, school graduation, or military service could affect marriage timing. Marriage could be delayed as these events become more common, or these events could act as a preliminary transition to adulthood and usually come before the main transition to adult status—the marriage event. If so, then the level of participation in these events will affect the timing of marriage (Becker, 1981).

The third perspective of marriage is that it is an institution that controls sexual practice and child bearing. It can be conceptualized as a social institution through which one is joined with a particular sexual partner and identified as responsible for socializing the children of this union (Kertzer, 1993). When societal repercussions of out-of-wedlock childbearing and sexual activity are strong, getting married provides the only means to a sexual partner and childbearing (Kohall, 1996).

Herrich (2002) in her documentation of trends in age at first marriage for men and women in African countries where survey or census information is available for at least two points in time; found out that women's marriage age is increasing, the trend for men is mixed, and spousal age differences are declining.

Women have gained other options than marriage for financial support and the support of children in form of paid employment. These options have allowed them the privacy and independence of adulthood, thus lowering their need to marry. Regarding men, sexual revolution and the increase in 'living together' mean that men have greater access to wife-like social and sexual services outside of marriage than they previously had, reducing their incentive to make longer-term commitments of financing and support (Ehrenreich, 1983).

2.2 Conceptual and operational frameworks

3.1.1 Conceptual framework

This study will be based on the framework proposed by United Nations (1988) for studying nuptiality. The framework is composed of a combination of interrelated blocks of factors. The background variables within the framework consist of social factors (socio-economic, cultural and crisis factors). Social factors are assumed to influence directly the four blocks of intermediate variables (United Nations, 1988).

The framework has three blocks of intermediate variables namely demographic factors (fertility, mortality and migration- determine overall population by age and sex; marriageable population- includes unmarried men and women who have reached minimum legal age of marriage; sub-population-social strata, religious and ethnic groups characterized by different marriage patterns), marriage norms and individual factors. These socio-demographic factors are assumed to be determined by the social factors in the first block and seem to influence the marriage patterns directly through the sex ratio of the marriageable population and indirectly through their influence on marriage norms (United Nations, 1988).

The marriage norms block, refers to the values held about legal and ideal age at first marriage (timing norms), marriage desirability (prevalence norms) and preferences of marriage partners (matching norms). Norms are assumed to reflect social traits affecting marriage not taken into

account by standard socio-economic factors, and may offer explanation as to why the same socio-economic variables affect marriage patterns differently in differing societal contexts (United Nations, 1988).

Individual factors block comprises the psychological and biological factors. Their role is minimal at aggregate level because, individual variations are assumed to cancel each other at the aggregate level. Also, hypotheses regarding this block are difficult to test because reliable data on a large scale are not available (United Nations, 1988).

Marriage market block includes offer and demand for marriage partners. Exit from the marriage market is achieved by entering a marital union or giving up the hope of marrying (United Nations, 1988).

The final block comprises the dependent variables namely timing of marriage (mean age at first marriage) and prevalence of marriage (proportions ever married at age 50) (United Nations, 1988).

The conceptual framework defines a chain of influences in which the social structure affects marriage patterns. The socio-economic, cultural and demographic factors constitute the societal fabric and represent the exogenous variables of the model. Together, they shape the population structure by age and sex which in turn produces marriageable population from which partners are drawn. Age norms, prevalence norms and matching norms put constraints on the selection of actual marriage candidates. Only those who meet social and/or individual prerequisites to enter a marital union will compete in the marriage market. Within the market, couples are formed according to complex mechanisms whose outcome will determine the timing and prevalence of marriage (United Nations, 1988).

Socio-economic factors

1. Economic conditions

Individual's prospects for achieving a good standard of living have been hypothesized to encourage earlier marriage. Marriage involves an expense of establishing a household hence

unemployment is positively associated with marriage age and negatively associated with the proportions marrying (Fernando, 1975).

Easterlin's (1980) relative income hypothesis also supports the argument. According to this hypothesis, at the individual level in periods when young people have high relative income, partially because they come from a small cohort, first marriage rates are accelerated.

Researchers have rarely investigated whether an association exists between the time when women marry and their economic circumstances or those of their family. According to Abbasi and colleagues, the increase in female age at marriage in Iran between 1986 and 1996 was due to the rise in the cost of living after the revolution and the deteriorating economic situation. Young people tend to delay their marriage until they get a job (Abbasi et al. 2002).

2. Urban-rural residence

More urbanized population subgroups and individuals are likely to delay marriage more and marry less often than individuals in rural settings, because improved economic conditions are associated with changes in marriage norms that tend to favour later marriage and propensity for permanent celibacy (United Nations, 1987b).

Increasing urbanization is likely to be associated with a delay in marriage because of the nature of urban life. Women in urban areas are exposed to modern values encouraging later marriage and are less likely to be under the influence of kin who control the timing of marriage and choice of spouse (Singh and Samara, 1996).

3. Education

Schooling has generally been hypothesized to delay marriage (Uche, 1994). However, the process by which education affects timing of marriage is not fully understood due to complex interrelations between it and other variables. Generally, the association of education with marriage timing is positive and is measured by the number of years spent in school. The longer the time spent in school, the later the entry into marriage market and consequently later entry into marriage (Becker, 1981; Mensch et al., 2005). Education is meant to develop the individual's career opportunities. Time spend in school may be compounded further with time

spend in labour market leading to increase in age at first marriage. However, education for women is not always tied to work goals. Parents may take their daughters to school to increase their chances of marrying an educated husband (Caldwell et al., 1983). Modernization in developing countries may be affecting age at marriage by increasing time spent in school and changing values about proper age to enter a marital union (Cheung et al., 1985).

Formal education narrows a woman's range of potential marriage partners, since women are generally expected to marry men at least as educated as themselves (Singh and Samara, 1996).

Education does not, a priori, have any direct bearing on marriage prevalence, but it may indirectly influence the level of permanent celibacy, especially in the case of women. The rationale for this is that higher education is likely to encourage more women to engage in a career which may delay marriage or eventually lead to non-marriage. In certain cases career may be preferred over marriage (Mugford and Darroch, 1980). Initiation of mass education and particularly increasing girl child enrolment in developing countries Kenya included, may have affected marriage prevalence by not only lengthening time spent in school but also weakening the authority of the old over the young and modifying the traditional values towards arranged and early marriage (Caldwell, 1980).

In many early-marrying societies, school attendance is incompatible with marriage and childbearing (Lindstrom and Paz, 2001). There is a positive association between educational attainment and age at marriage. For the most part, however, the countries where sizable proportions of young women marry very early are the same ones where educational attainment is low, and hence for most women a distinct gap exists between school-leaving and the earliest ages at which marriage might occur. Although schooling is often touted as enhancing girls' autonomy, empirical validation of the particular mechanisms is lacking. Education is said to give young women greater influence over the timing of marriage and choice of marriage partners (Jejeebhoy, 1995). Exposure to school is also thought to broaden a girl's perspective on the world, increasing her aspirations; present her with alternatives, for example, work opportunities; and provide her with a more Western outlook on life, which can include wanting to have a greater influence on choice of her husband (Lloyd and Mensch, 1999). Education also may give parents a strong

rationale for postponement of a daughter's marriage because of her enhanced income-earning potential (Lindstrom and Paz, 2001).

Although these are sound reasons for positing that age at first marriage is postponed as years of schooling increase, there are also reasons for concern that empirical estimates of this causal effect will be upwardly biased. Educational attainment for instance is likely to be endogenous to timing of marriage: that is, those who already intend to marry later (for whatever reason) stay in school longer, and those who intend to marry early leave school earlier to do so. Many researchers disregard this issue (Choe et al., 2001).

More educated men marry later due to time spent in school, military service and search for employment (Hogan, 1978). There is direct link between overall level of men's education on their marriage prevalence. It is however hypothesized that education interact with other variables to affect marriage. A case in point is where more educated men are thought to have a better chance of finding high status, high paying occupations and thus a greater chance of finding an appropriate mate, lowering the likelihood of an educated man to remain permanently single. In developing countries where marriage norms make marital union highly desirable, there is little room for education factor to play a major role. Contrary to this, increased schooling in developing countries, tend to lead to decrease marriage prevalence among men. This is because the education process leads to modification of marriage norms such as ideal age at marriage, parental control, arranged marriages, choice of spouse and payment of bride wealth, making an entry into marriage more demanding for young men who choose to act on their own (Caldwell et al., 1983).

Trends in education and age at marriage are not always closely connected. The region with the largest increase in educational attainment among young people—South and Southeast Asia—is not the region with the largest decline in early marriage. (Early marriage among young women has fallen most dramatically in the Middle East.) Moreover, although years of schooling have increased in Latin America in the past few decades, almost no change has occurred in age at marriage (Mensch et al., 2003).

An analysis of the literature on education indicates that schools are not always the progressive force for social change (Mensch et al., 2003). A more nuanced analysis of schooling and marriage is required. In particular, measures of the potential factors associated with an increase in schooling attained, such as changes in adolescent girls' gender-role attitudes, in their autonomy, and in norms about the spouse-selection process, might prove more illuminating than standard indicators of educational attainment. Data on gender-role attitudes of teachers, differences in the curriculum to which boys and girls are exposed, and analyses of the gender bias of textbooks would also be useful. The aim of gathering these data would be to distinguish communities with educational systems that reinforce the status quo from communities with educational systems that challenge existing norms (Mensch et al., 2005).

Mensch, Bruce, and Greene (1998) using DHS data from Colombia, Egypt, and Turkey documented spousal age differences by woman's age at marriage and found that even after controlling for female education, spousal age differences are larger among women who marry before age 20.

Casterline, Williams and McDonald (1986) examined spousal age differences in 28 developing countries using World Fertility Survey data; they found out that age differences are generally largest in societies that are patriarchal and have patrilineal kinship organization (including much of sub-Saharan Africa and the Middle East and some of South Asia) and smallest in settings where the traditional social structure allows for more equal status of spouses and/or where processes of modernization have improved the status of women (including many countries in Southeast and East Asia, Latin America, and the Caribbean).

4. Employment

Participation of women in labor force is hypothesized to influence their age at first marriage. Positive and negative associations between marriage timing and work have been hypothesized. Actual relationship therefore, is likely to depend on development and cultural context. In settings where women are expected to provide market earnings to support marriage, single women's work may provide a basis for early marriage for women who are working as opposed to those who are not. Such a case constitutes a negative association between age at first marriage and pre-

marital work experience. Conversely, in settings where marriage is associated with women's financial dependence on the husband, labor force participation may lead to delay in marriage (Preston and Richards, 1975). Equally, where the single daughter's earnings contributes to household's income, parents may influence their daughter's decision to postpone marriage (United Nations, 1985).

Increase in women's productivity in the economic market, may lead to decrease in productivity at home. This may lead to a decline in male-female complementary roles which is the rationale for marrying early or generally entering a marital union (Santos, 1975).

In developing world, participation of women in labor force does not appear to be a sufficient criterion for producing marriage timing differentials but rather their participation in modern occupations is what matter (United Nations, 1985).

Male marriage timing is directly related to time needed for schooling, apprenticeship and training and search for work. Marital requirements such as property ownership and pride wealth may further delay men's entry into marriage. Military service may also delay men's entry into marital union (Hogan, 1978).

Little has been done to assess the association between men's employment and marriage prevalence, because most men participate in labor force regardless of their marital status. Unemployment at young age may however, delay entry into marriage market long enough to result in permanent celibacy. Migration to search for employment may cause lack of culturally appropriate mates (Carlson, 1985).

5. Marriageable population

Marriageable population is defined as the number of men and women eligible for marriage according to specified criteria. Except in societies where polygamy is socially acceptable, the first prerequisite for entering a marital union is being unmarried, i.e. being single, widowed or divorced. The second prerequisite is having reached the legal minimum age for entering a marital union. Because men and women tend to choose their marriage partners from persons of the opposite sex of a slightly different age, they belong to age cohorts of a different size, and a certain balance is required between the age groups from which the matching partners are being

drawn. The mean difference in age between bride and bridegroom may range from two to three years up to 10 years and more. Thus, regardless of the nature and force of the marriage determinants involved, their role is assumed to be preconditioned primarily by the sex and age distribution of the population (Caldwell et al., 1983).

Disruptions in the age and sex distribution of the population create an imbalance between the number of men and women of corresponding age groups who are eligible for marriage which is defined as a "marriage squeeze" (Scheon, 1983). Sources of such disequilibria vary and can be the single or combined effects of changes in the size of birth cohorts, differential mortality by age, sex and marital status, and differential migration by age, sex and marital status. Male labour force movements from rural to urban areas as from one country to another and war losses are among the most common causes of distortion in the age distribution of the marriageable population (Carlson, 1985; Fernando, 1985).

6. Population subgroups

Population subgroup constitutes individuals who, within a given population, share at least one socio-economic or cultural characteristics that differentiate it with respect to the factor studied. In the study of marriage behaviour, population attributes, such as religion, class, caste, urban rural origin and ethnic group, need to be taken into consideration because they influence marriage behaviour (Hajnal, 1954b, Johnson, 1981). Thus, in countries with large population subgroups, marriage behaviour within the subgroup and the weight of these subgroups within the population need to be examined separately in order to account for observed changes in marriage patterns (United Nations, 1988).

7. Marriage norms

Marriage norms are assumed to be social responses to environmental conditions that are designed to maintain the survival of the group. In developing countries, changes in marriage patterns are generally attributed to modernization and industrialization (United Nations, 1988).

a. Timing norms

These are: the legal minimum age of marriage set by law and ideal or customary age which is socially appropriate for a man or woman to enter into a marital union. Minimum legal age of marriage in Kenya has been changing. In the 60s and 70s it was 9-18 for girls and 15-18 for boys (United Nations, 1988). In the 80s an amendment was made to the marriage, divorce and succession laws which revised the legal minimum marriage age to 16 for girls and 18 for boys (Eugene Cotran, 1996).

No study has investigated the connection between changing laws on age at marriage and trends in marriage age across countries. A review of policies affecting marriage in seven Anglophone African countries indicates that in some, such as Kenya and Nigeria, local and religious laws contradict national laws. In other countries, such as Tanzania, penal codes contradict national laws (Center for Reproductive Law and Policy, 1999). Reproductive rights advocates believe that laws specifying a minimum age at marriage are rarely enforced; rather, customary practice takes precedence over civil law (Boye et al., 1991). The data on age at marriage appear to support this view. In some countries the actual age at which many women marry is lower than the legal age (UNICEF, 2001).

A conviction appears to be growing that marriage should not take place during the teenage years, or at least not before age 18. According to human rights advocates, marriage before age 18 contravenes the United Nations Convention on the Rights of the Child, which defines 18 as the end of childhood, and thus defines marriage before that age as child marriage. Moreover, very early marriage is said to undermine other rights guaranteed by the Convention, including the right to be protected from physical abuse and sexual exploitation and the right not to be separated from parents against one's will (Population Council, 2002).

The ideal age at marriage is defined as the age or age range at which it is socially most appropriate to enter a marital union. Ideal age can be envisaged as upper or lower limit. In most traditional cultures, it is held that a girl should marry as soon as they begin their reproductive cycle (puberty). Conformity to this entirely depends on ability to find appropriate mate, time

needed to gather dowry and ability to dispose off an economic basis for establishing a household (United Nations, 1988).

Marriage norms have traditionally been linked to family size norms. Under conditions of high mortality, early marriage is considered as maximum possible edge against the threat of failure in population replacement (Lesthaege, 1980). Under conditions of declining mortality, declining family size norms associated with the practice of fertility regulation should induce higher ages at marriage (United Nations, 1988).

b. Prevalence norms

Prevalence norms reflect the socially perceived desirability of entering a marital union as well as the social means of ensuring that the largest degree of conformism to this norm is achieved. High prevalence norms are common in most developing countries (Dixon, 1971). Cohabitation and living together have the potential of initiating new prevalence norms when cohabitation is regarded as a lasting marital relationship (Thornton and Freedman, 1982).

c. Matching norms

Matching norms define the rules and processes which determine and influence the choice of a marital partner. They relate specifically to social and individual characteristics of desirable partners. The matching of the bride's and groom's social characteristics is regulated by rules of endogamy and exogamy and the individual traits by the process of assortative mating. Endogamy is where both spouses have to belong to the same group e.g. clan, tribe or religion, or geographical location (United Nations, 1988). Matching of the bride's and groom's individual characteristics is referred to as assortative mating and is defined as the tendency to select a mate with characteristics similar to one's own (Bowerman, 1953).

8. Individual factors

Individual factors includes psychological traits which are the motivational factors influencing an individual's likelihood to enter a marital union. At individual level, desire to marry may arise from; desire for children, continuation of the family name, companionship, distraction, love, help in old age. In societies where premarital sexual relations are prohibited, marriage is perceived by

individual as a means to have sexual gratification (United Nations, 1988). Age at menarche is associated with earlier age at marriage especially where fear for pre-marital conception due to social reprobation for illegitimate births and contraception is unavailable (Caldwell et al., 1983).

9. Marriage market

Marriage market is the abstract location where marriage candidates meet a partner and marriages are formed. The marriages are either by own volition or through parental/family initiative with or without assistance of intermediaries. The offer and demand for marriage partners take place within the marriage market. Marriage formation process within the marriage market can be predicated through four phases identified by Louis Henry namely; marriage candidacy, entry into marriage circles, matching of couples and formation of marriage (United Nations, 1988).

Marriage candidacy according to Henry includes marriageable men and women who are willing or actively seeking matrimony (United Nations, 1988).

When one becomes a marriage candidate, he/she enters the marriage market, where matching of marriage partners and marriage formation take place. Marriage market is constituted by a number of submarkets called marriage circles which are small localized marriage markets where marriage candidates of similar socio-cultural backgrounds expect to find a compatible marriage partner. Marriage candidates can explore more than one marriage circle. In traditional settings where arranged marriages prevail, there may be well defined endogamic circles that prohibit inter-marriages. In more modernized families, where free choice prevails, candidates enter de-facto circles such as place of residence, college of study, social strata and dance halls (Johnson, 1981, Casterline et al., 1986).

Actual matching of marriage partners takes place within the marriage circles in conformity with rules of exogamy, endogamy, and assortative mating. Matching of marriage partners can be either by arranged marriages, free choice of partners or both. Extended traditional families are associated with early marriage norms and assistance from relatives, intermediaries or matchmakers (Otto, 1979 quoted in United Nations, 1988). Free choice matching is assumed to take more time than arranged marriages, leading to later marriages, though there's no empirical evidence for this (United Nations, 1988).

Social conditions and customs facilitate maintenance of the match during the courtship process. Decision to marry closes the courtship and matching process. In many cultures, marriage is a single event established by a wedding ceremony (religious, civil or customary). In others, marriage consists of more than one event, hence difficult to identify marriage type and timing. Marriage contracts in some societies may be entered into even before the children are born (Ekpere et al., 1978).

Age at marriage and risk for HIV infection

Delaying women's age at marriage, if it delays sexual intercourse, should reduce the age-specific rate of HIV infection among young women. In 13 of 24 sub-Saharan African countries where the probability of marrying by age 18 has declined significantly in the last 20 years, the overall proportion of women having sex by age 18 also declined significantly (Mensch et al., 2005). Additionally, evidence exists from some studies that unmarried sexually active adolescents in sub-Saharan Africa have lower rates of HIV infection than do their married counterparts (Clark, 2004). Analysis of DHS data indicates that married adolescent girls have a higher frequency of sex than unmarried adolescent girls, are less likely to use condoms, and have older sexual partners, namely their husbands, who are more likely to be HIV-positive (Clark, 2004). Thus, even if later marriage does not lead to a delay in sexual debut, the argument is made that the nature of sexual activity among married adolescent girls puts them at higher risk for HIV infection than their unmarried counterparts (Mensch et al., 2005).

The assertion that the level of infection is higher among married adolescents compared with single adolescents is based on prevalence data rather than incidence data. Prevalence data obscure the possibility that young married girls may have become infected while they were single and that infected adolescent girls may be more likely to select into early marriage. Second, even if early marriage elevates HIV risks for adolescent girls, in the long run marriage may prove to be more protective than remaining single and sexually active (Mensch et al., 2005).

On the other hand, sexually active never-married women are more likely to change partners than currently married women which raises their risk of encountering an infected partner. In addition, the male partners of unmarried women are more apt to be single and, therefore, are more likely

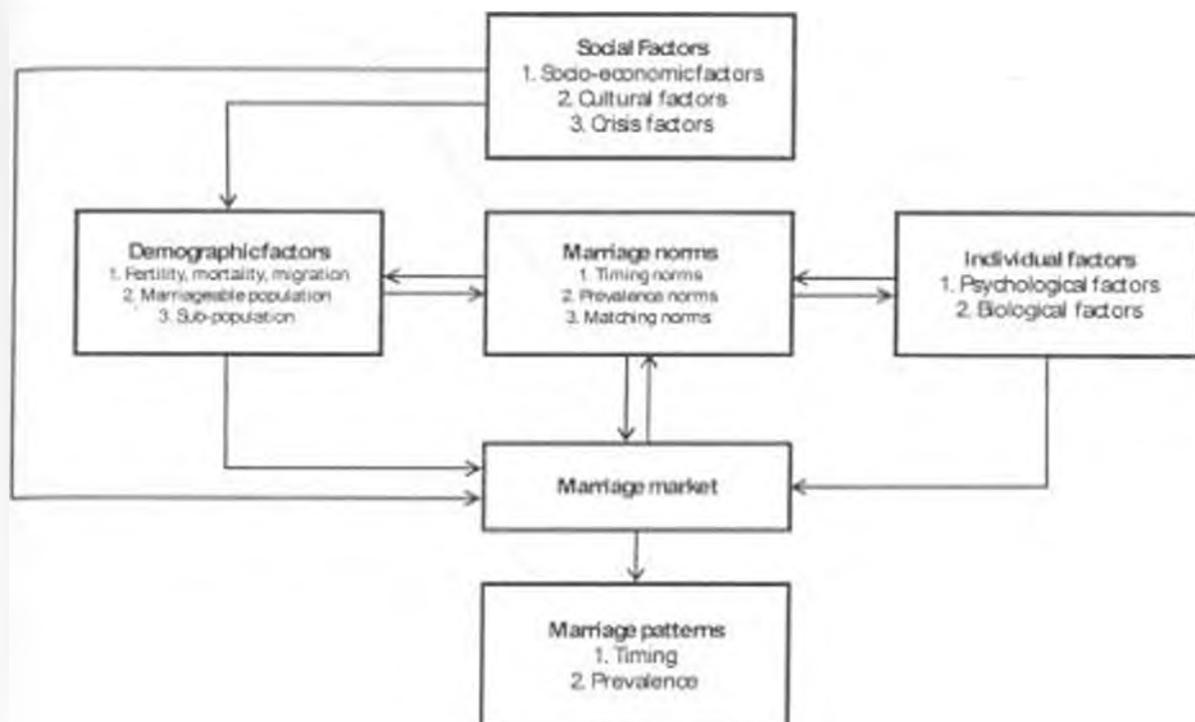
to have multiple sexual partners than are men in monogamous unions (Alan Guttmacher Institute, 2003). However, if men in polygamous unions are considered, then married men may be more likely to have a greater number of sexual partners than single men, as is observed in Rakai (Gray et al., 2004).

In countries where premarital sex is prevalent a delay in marriage may increase exposure to HIV and other sexually transmitted infections because, a greater proportion of unmarried than married men have multiple sexual partners (Alan Guttmacher Institute, 2003). Alternatively, in countries where norms of postpartum abstinence remain and men marry early, they may be more likely to engage in intercourse with other partners, including commercial sex workers, during the postpartum period. Clearly more research is needed on the linkages between changing age at marriage, sexual behavior, condom use, and HIV risk among both men and women (Menschet al., 2005).

Age at first sex and risk of early marriage

Early age at first sex increases the chance of entering into marriage in Kenya. A woman who initiates sexual activity before age 20 is significantly more likely to enter into early marriage compared to that one who starts sexual activity when at least 20 years old (Ikamari, 2005). An analysis of the determinants of age at first marriage from the 2003 KDHS by Nthenge (2006) supports this assertion.

Fig.1: Conceptual framework for the study of marriage patterns



Source. United Nations 1998

In this study, only socio-economic factors (education, type of place of residence and region of residence, wealth index, employment status.), cultural factors (religion and ethnicity), demographic factors (sexual debut) and timing of marriage which are available in the 2003 KDHS male and female datasets will be measured.

2.3 Operational framework

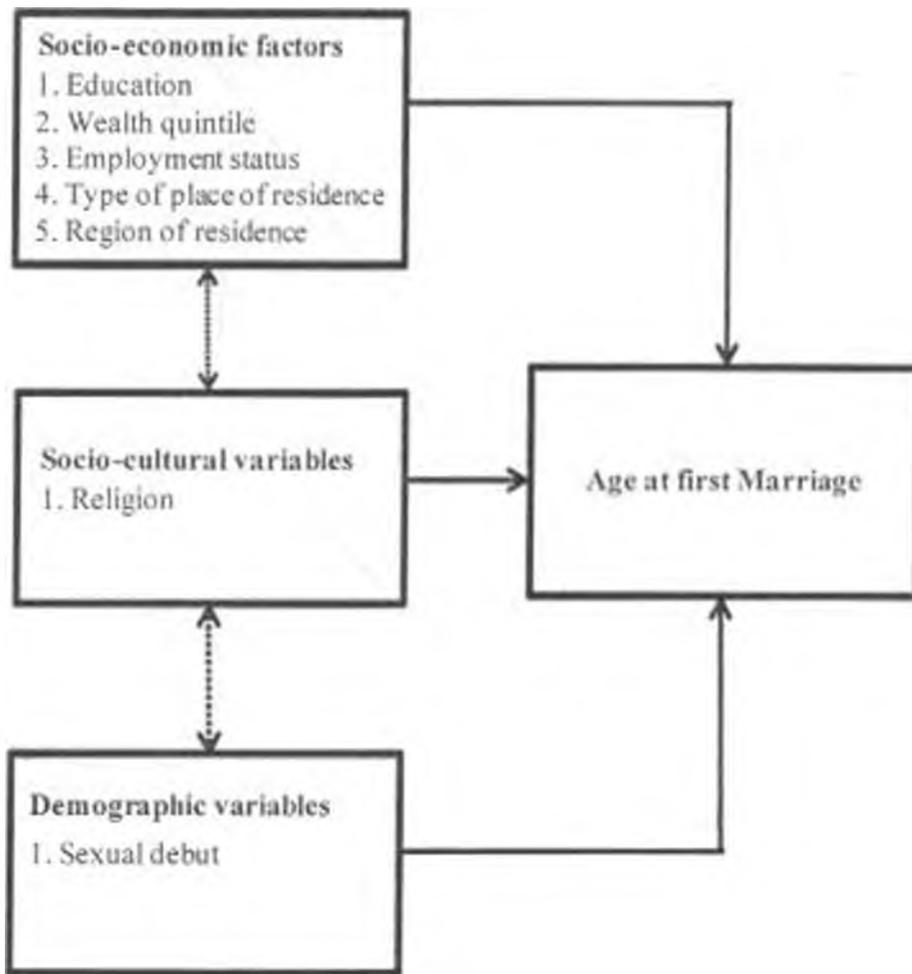
Socio-economic and socio-cultural conditions

At aggregate level, socio-economic and socio-cultural conditions are hypothesized to determine marriage timing and prevalence.

Demographic factors

Onset of sex (sexual debut) is known to positively influence marriage decisions.

Fig.2: Operational framework for the study of marriage timing in Kenya



(Adapted from UN 1988 framework for study of marriage)

Key

- ←.....→ The relationship will not be measured
- The relationship will be measured in the study

2.4 Operational hypothesis

Timing of marriage is affected by socio-economic, socio-cultural and demographic variables (Highest level of education, place of residence, type of place of residence, wealth index, employment status, religion, ethnicity and sexual debut).

There exist sex differences in the timing of marriage and these are determined by the interplay with various socio-economic, socio-cultural and demographic variables.

2.5 Definition of terms

Nuptiality – The study of frequency of marriages- Formation and dissolution of marital unions.

Marriage- Used in the study to mean any union between a man and a woman consummated or not consummated.

Patterns- Used in the study to mean the sum total of the timing of entry into marital union, the incidence and the frequency at which it occurs in a population

Timing – Used in the study to imply change in the status from single to married and it involves the estimation of the average age at first marriage.

Incidence- Is a measure of quantity of marriages. It is the frequency of change in the proportions ever marrying. In this study it will refer to proportions ever married at age 50.

Life table- Is a statistical presentation of the life history of a cohort, commencing with the starting event, as the cohort is progressively thinned out over time by failures. Failure in this study refers to first entry into marriage.

Survival analysis- Refers to a collection of statistical procedures for analysis of data in which the outcome variable of interest is time until the event occurs such as marriage, birth, death, divorce etc.

Event- Is any designated occurrence of interest that can occur to an individual such as marriage, birth, death etc.

Time-Refers to period in years, months, weeks or days from the beginning of follow up of an individual until an event occurs.

Censoring- Occurs when we have some information about an individual's survival time but we do not know the survival time exactly. Age at first marriage is interpreted as survival time from single state to married state. Women who are not married as at the time of the survey are considered as censored cases in the study

2.6 Variables

Dependent variable: Duration to first marriage (in single years)

Independent variables:

- **Level of education:** Is categorized as no education, primary incomplete, primary complete and secondary and above
- **Region of residence:** This refers to one of the eight provinces of Kenya i.e., Nairobi, Central, Coast, Eastern, Nyanza, Rift Valley, Western and North Eastern
- **Place of residence:** this is categorized into rural and urban based in the level of modernization and development
- **Wealth index:** Is categorized into Poor, Middle, Rich
- **Religion :** This is categorized as Catholic, Protestants (other Christians), Muslims, and others no religion
- **Ethnicity:** In the study nine ethnic groups are considered. That is; Kikuyu, Luo, Luhya, Kamba, Kalenjin, Mijikenda, Meru/Embu, Kisii and others
- **Age at first sex:** In the study three age groups at which first sexual activity was encountered are considered i.e. 13 and below years, 14-17 years and 18 and above years. This categorization is consistent with official ages at which primary, secondary and post secondary level schooling are attained.
- **Employment:** Employment in this study is taken to mean paid employment. Categorized as either employed or unemployed. It refers to labour-force participation.

Table 1: Summary of variables used in the study

Variable	Variable definition
<i>Dependent variable</i>	
Duration to first marriage	<u>Reported age at 1st marriage</u>
<i>Independent variables</i>	
Education	<u>Highest level of education completed</u> None Primary Secondary and above
Residence	<u>Type of place of residence</u> Urban Rural
Region	<u>Place of residence</u> Nairobi Central Coast Eastern Nyanza Rift Valley Western North Eastern
Wealth	<u>Wealth index</u> Poor Middle Rich
Employment	<u>Employment status</u> Employed Unemployed
Religion	<u>Type of religion</u> Catholic Protestant Muslim Other/ No religion
Ethnicity	<u>Ethnic group</u> Kikuyu Luo Luhya Kamba Kalenjin Mijikenda Meru/Embu Kisii Others
Age at first sex	<u>Sexual debut</u> <13 years 14-17 years 18 + years

CHAPTER THREE

DATA AND METHODOLOGY

3.1 Data sources and quality

3.1.1 Introduction

This chapter gives a description of the source of data and the methods of data analysis that have been utilized in this study. Data quality is also examined. Descriptive statistics, Life table and Cox proportional hazard model are the main methods of data analysis.

3.1.2 Data source

The study will utilize the 2003 KDHS. The 2003 data is a sample survey of 8,195 women aged 15-49 and 3,578 men aged 15-54 selected from 400 clusters throughout Kenya.

3.1.3 Data quality

To evaluate the quality of data, the completeness of information on age reporting is examined: ages of respondents in single years plotted and digit preference in age reporting checked by computing the Whipple's index for male and female respondents. The quality of other data variables included in this study is generally okay as shown by tabulations in the KDHS 2003 report

Completeness of information

The table below gives a snapshot of the completeness of information on birth dates given by respondents. The reporting of year of birth was about 83% complete. About 16% only reported age and ignored year.

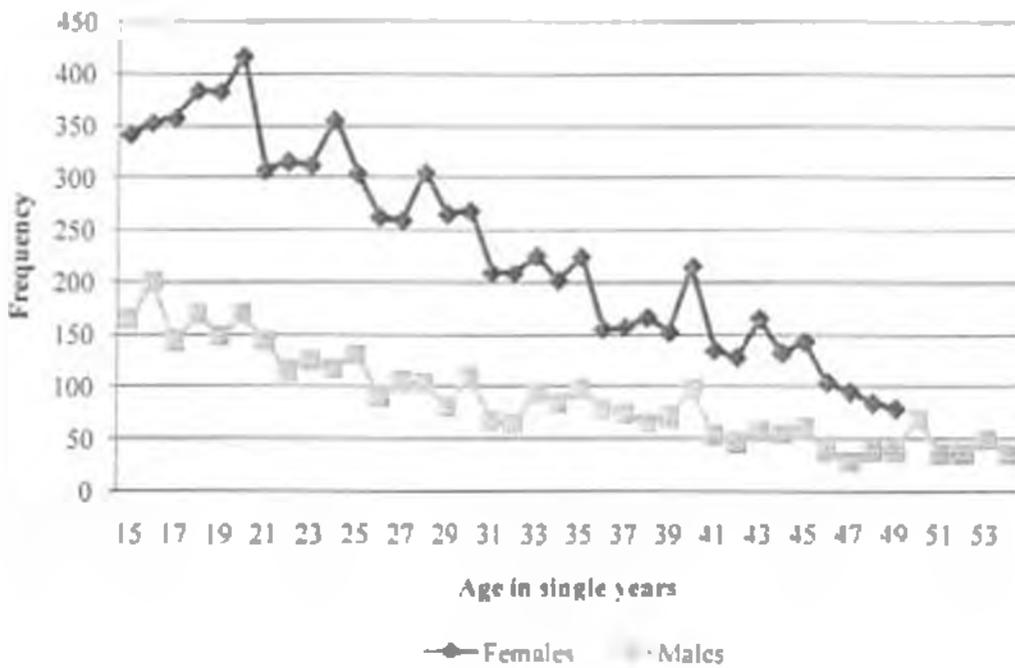
Table 2: Completeness of information

	Male		Female	
	Frequency	Percent	Frequency	Percent
Month and year	2,605	72.8	5,700	69.6
Month and age - year imputed	1	0	6	.1
Year and age - month imputed	312	8.7	934	11.4
Year and age - year ignored	652	18.2	1,312	16.0
Age - year, month imputed	8	.2	243	3.0
Total	3,578	100.0	8,195	100.0

Distribution of age in single years

Digit preference on age reporting was checked by plotting a graph of current age in single years against frequency of males and females. High peaks, in particular age digits compared to others depict preference for those digits. If ages are reported accurately, the distribution will assume a smooth curve. The figure below indicates preference for digits ending with 0 and 5.

Figure 1: Distribution of age in single years



Whipple's index

The Whipple's index was computed to check for the existence of age preference for digits ending with 0 and 5.

The index is given as;

$$W_i = \frac{\sum P_a \cdot 100}{1/5 \sum P_i}$$

Where:

a=15,20,25,30,35,40,45 for women and 15,20,25,30,35,40,45,50 for men

i=All ages from 15-49 for women and 15-54 for men.

Results vary from a minimum of 100 to a maximum of 500 if there are no returns recorded with digits other than 0 and 5.

Males

$$\frac{(165+170+132+109+98+98+61+70) \cdot 100}{1/5 \cdot 3,578}$$

Females

$$\frac{(345+417+305+269+225+260+144) \cdot 100}{1/5 \cdot 8,195}$$

Table 3: Whipple's index

Age	Males	Females
15	165	345
20	170	417
25	132	305
30	109	269
35	98	225
40	98	260
45	61	144
50	70	-
Total (Males- 15-54; female- 15-49)	3,578	8,195
Whipple's index	126	120

The indices for males and females were 126 and 120 respectively indicating that age reporting for males was somehow rough while that of females was fairly accurate.

Age at first marriage reporting

Inaccuracies in the reporting of age at first marriage were checked by plotting the proportion of ever married males and females against age in single years. Heaping for males occurred around age 25 while among females heaping occurred around ages 17 and 20.

Figure 2: Distribution of ever married males by age at first marriage



Figure 3: Distribution of ever married females by age at first marriage



Cumulative frequency curves were drawn from the distribution of ever married males and females who indicated age at first marriage. The proportions marrying are supposed to increase with age. The proportions married for both groups increased smoothly with age taking the form of a sigmoid curve, an indication of no heaping.

Figure 4: Cumulative frequency curve for ever married males

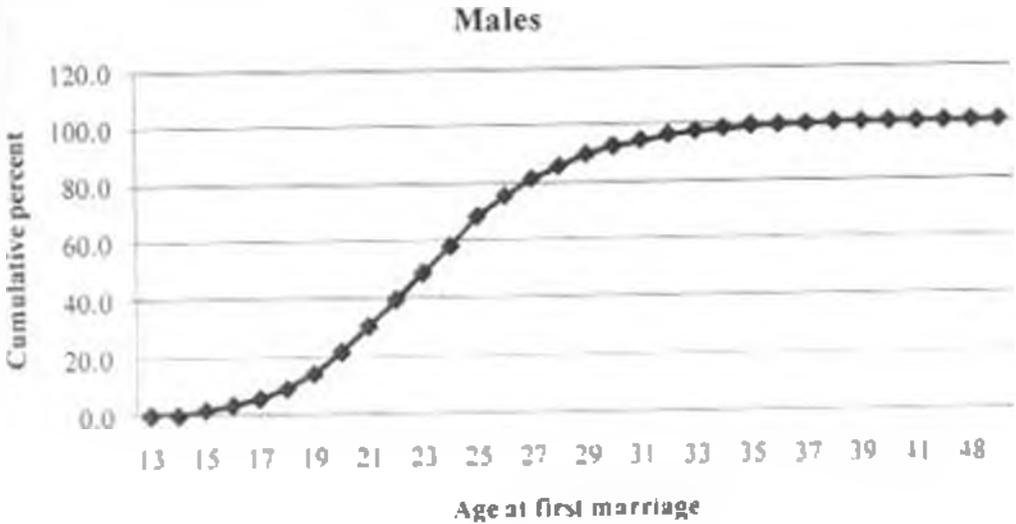


Figure 5: Cumulative frequency curve for ever married females



3.2 Methods of data analysis

This section presents statistical methods used in data analysis. The study utilizes descriptive statistics, and life table techniques. These methods are discussed below. Separate bivariate and multivariate survival life tables (Cox hazard models) are computed for men and women to determine whether the process of first marriage differs among them. Bivariate life table

technique is used to compute median age at first marriage by selected background characteristics. Multivariate life table technique (Cox hazard models) will be utilized in assessing the risk of first marriage by various background characteristics.

3.1.4 Descriptive statistics

Descriptive statistics are used to summarize data and compare the characteristics of the study population for the males and females.

3.1.5 Life table

The life tables (survival tables) have become a standard procedure for tracking duration specific likelihood of experiencing an event. The concept of the life table is to follow a group of people from an initial time until they experience the event of interest, in this case birth and first marriage. It makes comparison using summary statistics, that is median survival time (for this study it is the median interval between birth and first marriage and this refers to the duration within which half of the never married men and women are expected to have had a first marriage).

Some fixed covariates will be used to determine whether there exist differentials in the interval between birth and first marriage and which factors affect the interval.

The life tables will be used to estimate the duration from when one is born to the time when they have a first marriage.

3.1.6 Multivariate life table (Cox Proportional Hazard Model)

Cox hazard model is a multivariate life table and in this study it is used to investigate the effects of the various covariates on the interval between birth and first marriage. The interval between birth and duration to first marriage is the dependent variable and is measured in completed years. It can be interpreted as the duration between birth and first marriage. Through out the interval, men and women included in the study may either have experienced first marriage or be right censored. Censoring occurs when some information about an individual's survival time is available but it is not the exact survival time. To avoid the problem of censoring multivariate life table technique (Cox Proportional Hazards model) is used.

The model allows the inclusion of covariates and handles censored cases appropriately providing estimate coefficients for each covariate. This enables one to assess the effect of the covariates on the dependent variable relative to the reference category.

The general form of Cox hazard Model is:

$$h(t, Z) = h_0(t) \exp(\beta_1 Z_1) \text{ or } \log \frac{h(t, Z)}{h_0(t)} = \beta_1 Z_1 \text{ where}$$

$h(t, Z)$ – is the hazard of failure for an individual with Z characteristic

$h_0(t)$ – baseline hazard when $x = 0$, called reference group

Z_1 = vector of parameter

β_1 = vector of unknown parameters to be estimated in the model

$\exp(\beta_1 Z_1)$ – relative hazard function or relative risk associated with having characteristics Z_1

Hazard function enables one to estimate the relative risk of other groups in relation to the baseline group (reference group). When there is no covariate present in the model the $\exp(\beta_1 Z_1)$ is one (1). Values greater than one indicate that the relative risk of the first birth in marriage for that group is greater compared to the reference group. Conversely, values less than one indicate that the relative risk of experiencing a first marriage is lower for that group compared to the reference group.

Cox hazard Model (survival analysis) focuses on the distribution of survival times. Survival modeling examines the relationship between survival and one or more predictors, usually termed covariates.

Interpreting a Cox model involves examining the coefficients for each explanatory variable. A positive regression coefficient for an explanatory variable means that, the hazard is higher and thus the prognosis is worse, for higher values. Conversely, a negative regression coefficient implies a better prognosis for subjects with values of that variable. Exponentiation of a regression coefficient yields the estimated hazard ratio. The hazard ratio gives the risk relative to

the reference category which is normally assigned 1.000. The percentage risk is obtained by subtracting 1.000 (the reference category value) from the exp (B) of the explanatory variable (or category) and multiplying the result by 100. A negative percentage indicates a decrease in the risk while a positive percentage indicates an increase in the risk compared to the reference category.

An approximate test of significance for each variable is carried out by dividing the regression estimate (b) by its standard error (SE(b)), and comparing the result with the standard normal distribution. Values of this ratio greater than 1.96 will be statistically significant at the 5% level.

Life table technique has a weakness in that we must divide a sample into cross tabulated sub sample and calculate separate life tables for each sub sample. When non of the classes is small, it works perfectly, but often the sample size becomes very small, with several classifications ending up with numerous standard errors. Under such conditions, its good to use more comprehensive and complex models for comparison in which factors affecting failure times are represented by unknown parameters. This is the reason why the study makes use of hazard cases so that we don't need such a large sample to get statistically meaningful results.

CHAPTER FOUR

DETERMINANTS OF AGE AT FIRST MARRIAGE

4.1 Introduction

This section provides an analysis of the determinants of first age among men and women in Kenya using the bivariate and multivariate life table approaches. Section 4.2 examines the general characteristics of the overall study population and the ever married sample. Section 4.3 gives an examination of the correlates of median age at first marriage using the life table approach. Section 4.4 provides an analysis of the first marriage risks provided by the exposure to various socio-economic, cultural and demographic factors.

4.2 Background characteristics of the study population

Table 4 gives the background characteristics of the study population. The study covers a total of 7,578 males aged 15-54 years and 8,195 females aged 15-49 years interviewed during the 2003 Kenya demographic and health survey. Of these, 55.7% (1,994) men and 69.9% (5,729) women were ever married.

Of the total male sample, 8.3% had no education, while 53.7% had completed primary education and a further 38% had reached at least secondary education. Among the ever married men, 10.9%, 49.8% and 39.3% had no education, primary level and at least secondary level of education respectively. The female sample comprised of 15.8% with no education, 53.1% with primary education and 31.2% with secondary or above level of education. A similar pattern is exhibited in the ever married proportion (none 20.1%, primary 53% and at least secondary 26.9%).

In both male and female total and ever married samples, approximately a third of the study population were living in an urban setting while two thirds were living in a rural setting.

Central region had the highest proportion of the male sample (17.4%) followed by Rift Valley (16.4%). The highest proportion of the ever married men was drawn from Rift Valley (17.4%) and Central provinces (16%) respectively. The same provinces had the largest distribution of the overall and ever married female samples. North Eastern had the least distribution of both male and female samples all through.

About half of the male total (52.2%) and female total (50.4%) samples are classified as rich while only 6.5% and 3.1% of the ever married men and women are classified as rich. In terms of religious affiliation, Protestant/other religion had most of followers with more than half of the sample belonging to it. Kikuyu ethnic group forms the majority for both men and women samples. Kisii ethnic group on the other hand form the minority.

Majority of men and women experience their first sexual encounter during the secondary school going age (14-17 years). From the total male and female samples, 36% and 41.5% had had onset of sex during 14-17 year period. However, majority of the ever married men had their first sexual encounter at age 18 or above (45.2%), while majority of women had it when they were 14-17 years old (50.9%).

Table 4: Distribution of the study population by background characteristics, KDIIS 2003

		<i>Total</i>				<i>Ever married</i>			
		<i>Males (15-54)</i>		<i>Females (15-49)</i>		<i>Males (15-54)</i>		<i>Females (15-49)</i>	
		<i>(%)</i>	<i>(%)</i>	<i>(%)</i>	<i>(%)</i>	<i>(%)</i>	<i>(%)</i>	<i>(%)</i>	<i>(%)</i>
		No of cases	%	No of cases	%	No. of cases	%	No. of cases	%
Highest level of education	No education	296	8.3	1,291	15.8	218	10.9	1,153	20.1
	Primary	1,923	53.7	1,148	51.1	993	49.8	3,039	53
	Secondary and above	1,359	38.0	2,556	31.2	783	39.3	1,537	26.9
	Total	3,578	100.0	8,195	100.0	1,994	100	5,729	100
Type of place of residence	Urban	1,150	32.1	2,751	33.6	657	32.9	1,782	31.1
	Rural	2,428	67.9	5,444	66.4	1,337	67.1	3,947	68.9
	Total	3,578	100.0	8,195	100.0	1,994	100	5,729	100
Place of residence	Nairobi	493	13.8	1,169	14.3	281	14.1	686	12
	Central	621	17.4	1,314	16.0	319	16	882	15.4
	Coast	375	10.5	938	11.4	216	10.8	703	12.3
	Eastern	468	13.1	993	12.1	234	11.7	667	11.6
	Nvaosa	434	12.1	1,025	12.5	246	12.3	749	13.1
	Rift Valley	386	10.8	1,328	16.2	346	17.4	999	17.4
	Western	435	12.2	991	12.1	238	11.9	682	11.9
	North Eastern	166	4.6	437	5.3	111	5.7	361	6.3
	Total	3,578	100.0	8,195	100.0	1,994	100	5,729	100
Wealth index	Poor	1,096	30.6	2,682	32.7	1,634	82.0	4,728	82.6
	Middle	615	17.2	1,381	16.9	231	11.6	819	14.3
	Rich	1,867	52.2	4,132	50.4	128	6.5	174	3.1
	Total	3,578	100.0	8,195	100.0	1,993	100	5,721	100
Employment status	Unemployed	2,036	56.9	2,898	35.4	1,472	73.8	2,133	37.2
	Employed	1,542	43.1	5,297	64.6	522	26.2	3,596	62.8
	Total	3,578	100.0	8,195	100.0	1,994	100.0	5,729	100.0
Type of religion	Catholic	913	25.5	1,919	23.4	534	26.8	1,267	22.1
	Protestant/other Christian	2,055	57.5	5,045	61.6	1,100	55.2	3,461	60.5
	Muslim	381	10.7	1,025	12.5	231	11.6	819	14.3
	Other/no religion	228	6.4	196	2.4	128	6.5	174	3.1
	Total	3,577	100.0	8,185	100.0	1,993	100	5,721	100
Ethnic group	Kikuyu	845	23.6	1,977	24.1	450	22.6	1,285	22.1
	Luo	390	10.9	853	10.4	222	11.1	623	10.9
	Luhya	520	14.5	1,229	15.0	305	15.3	849	14.8
	Kamba	371	10.4	786	9.6	185	9.3	521	9.1
	Kalenjin	324	9.1	643	7.8	178	8.9	454	7.9
	Mijikenda	214	6.0	566	6.9	115	5.8	456	8
	Meru	218	6.1	487	5.9	130	6.5	297	5.2
	Kisii	208	5.8	454	5.5	104	5.2	307	5.4
	Others	488	13.6	1,200	14.6	305	15.3	937	16.4
	Total	3,578	100.0	8,195	100.0	1,994	100	5,729	100
	Sexual debut	Not had intercourse	571	16.0	1,398	17.9	N/A	N/A	N/A
<14years		579	16.2	656	8.4	299	15.0	560	10.4
14-17years		1,282	36.0	3,246	41.5	790	39.8	2,737	50.9
18+ years		1,134	31.8	2,527	32.3	898	45.2	2,081	38.7
Total		3,566	100.0	7,827	100.0	1,987	100	5,378	100.0

N/A-All ever married are assumed to have had sex, hence those who said have never had sex were removed from analysis

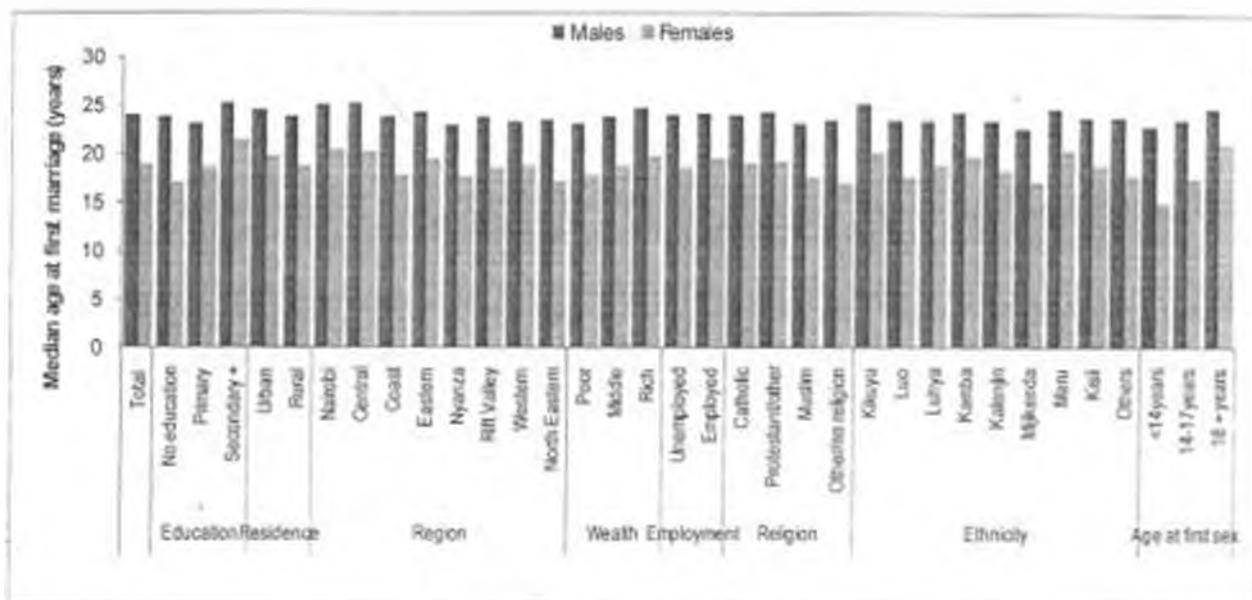
4.3 Differentials in median age at first marriage

The life table method is used to estimate the differentials in the median age at first marriage. The median age at first marriage in the study refers to the age at which approximately half of the men and women are supposed to have experienced first marriage. The table below shows the median age at first marriage among men and women in Kenya by background characteristics.

Previous family studies have found out that women are more likely to enter into marital unions early compared to their male counterparts (Dunham and Bengtson, 1994). For most conjugal unions, men are usually older as they prefer to marry women who are younger than themselves (Clark, 2004; Jejeebhoy, 1995). The life table analysis for this study supports this argument. Kenyan men marry 5 years later compared to their female counterparts. The life table median age at marriage for men is 24.1 while that for women is 19.0.

The figure below shows the differentials in median age at first marriage among men and women in Kenya.

Figure 6: Median age at first marriage among men and women in Kenya by background characteristics



Education and median age at first marriage

Schooling has been hypothesized to positively influence age at first marriage among both men and women. Time investments in educational activities that provide necessary human capital for employment also compete with potential time investments in marriage. For women, it lengthens the period that they are willing to wait to marry in the hope of finding a higher quality mate (Oppenheimer, 1992.). The findings indicate that education increases the median age at marriage for both men and women in Kenya. However, for men, the median age at marriage for those without education (23.9) is higher than for those with primary education (23.2). Additionally, it is interesting to note that even with acquisition of higher education, women still marry earlier than men in Kenya. For instance, median age at marriage for men and women with at least secondary schooling is 25.3 and 21.4 years respectively. A plausible explanation could be that educated women have more difficulty finding qualified husbands hence they prefer marrying

before advancing their education. To a large extent, ideological factors may be the most influential path through which educational content affects women's marriages (Malhotra, 1997).

Type of place of residence and median age at first marriage

Men and women in urban areas are more likely to marry later compared to their rural counterparts since they are exposed to modern values encouraging later marriage and are less likely to be under the influence of family who control the timing of marriage and choice of spouse (Singh and Samara, 1996). The median age at first marriage among women is 18.7 years for the rural sample and 19.7 years for the urban sample. Men in both areas marry considerably later than women, with a median age of 24.6 years in the urban areas and 23.9 years in the rural areas. Contrary to expectation, the difference in the average age at which men and women marry is not smaller in the urban sample. There is about a 4.9-year gap for the urban sample which is not far from the rural sample gap (5.2 year gap).

Region and median age at first marriage

Nthenge (2006) using KDIIS 2003 has shown that there exist regional differences in age at first marriage among women in Kenya. The findings of this study confirm that indeed there are regional variations not only in women but also among men. What is more striking is that the first marriage age gap averages at 5 years in almost all the provinces. The regions with the highest median age among men are Central (25.2), Nairobi (25.0) and Eastern (24.4) in descending order, while among women Nairobi has the highest median age at first marriage (20.5) followed by Central (20.2) and Eastern (19.5).

Wealth index and median age at first marriage

Marital requirements such as property ownership and pride wealth are hypothesized to delay men's entry into marriage (Hogan, 1978). Going by this assertion, then wealth is supposed to accelerate men's entry into marriage. Conversely, findings from this study indicate that, availability of wealth tends to delay entry into first marriage. The poor have the lowest median age at marriage (23.1), while the wealthy have the highest median age at first marriage (24.8). The likely explanation for this could be due to the exposure, which men with wealthy backgrounds get. These include modern living arrangements which provide alternatives to marriage during prime years such as spending more time in the school and searching for better job opportunities outside home. This leads to change of values about proper age to enter a marital union (Cheung et al. 1985).

Among women, improved economic conditions are associated with changes in marriage norms that tend to favour later marriage and propensity for permanent celibacy (United Nations, 1987b). The findings of this study support this conclusion, since the median age at first marriage for poor women (17.9) is lower compared to the wealthy women (19.8).

Employment status and median age at first marriage

Employment serves as an important means for independence, in terms of better, more equal options for women. Labour force participation not only offer socially legitimate alternatives to marriage for women, thus breaking the connection between puberty and entry into marriage, but they also are instrumental in motivating young men and women to emulate a Western conceptualization of marriage in terms of self-selection of spouses and more nuclear, conjugal and egalitarian marital relationships (Thornton et al., 1984; United Nations, 1988).

According to Carlson (1985), unemployment at young age among men may delay entry into marriage market long enough to result in permanent celibacy. Migration to search for employment may cause lack of culturally appropriate mates.

The differences in the median age at first marriage with regard to employment status are mainly observed among women. The point two (0.2) difference between the median ages at first marriage for the employed and unemployed men (unemployed-24.0, employed-24.2) means that

employment does not affect propensity to enter into first marriage among men. The 18.6 and 19.6 median age differences at first marriage (1 year difference) among the unemployed and employed women implies that labour force participation increases first marriage chance for women in Kenya.

Religion and median age at first marriage

Religion is believed to influence an individual's age at entry into first marriage. For instance, for a staunch protestant or catholic faithful, it is mandatory to be married through a church wedding. The cost of a wedding is prohibitive and beyond reach for most people. This encourages postponement of marriage until one is able to finance a wedding. The findings indeed show both men and women who are catholic or protestant other Christian tend to marry later than their counterparts. The median ages at first marriage among catholic and protestant men are 24.1 and 24.4 respectively. Muslim men marry a year earlier (23.1). Christian women also marry later compared to Muslim women and women in other religions or with no religion (Catholic 19.1; Protestant other Christian 19.3; Muslim 17.7; Other/no religion 17.0).

Ethnicity and median age at first marriage

Cultural explanations for marriage timing encompass a range of factors that influence young women's expectations and beliefs about women's roles, the importance of marriage and education, and the appropriate or accepted timing of marriage (McLaughlin and Lichter, 1997). Each of the Kenyan ethnic groups has a unique culture that guides entry into marriage.

There exist ethnic differentials in age at first marriage. Different ethnic groups have different cultural underpinnings with regard to the institution of marriage, some of which support early marriage while others support later marriage (United Nations, 1988).

Both men and women from the Kikuyu and Meru ethnic groups tend to enter into first marriage later compared to other ethnic groups as evidenced by their median ages at first marriage (Kikuyu males- 25.2, females- 20.3, Meru males- 24.7, females- 20.5). The Kalenjin and Luo men marry earlier compared to other ethnic groups at a median age of 23.5, the Mijikenda and Luo Women marry earlier than other Kenyan tribes (Mijikenda- 17.3, Luo-17.7). Generally

women marry earlier than men in all the ethnic groupings with an average difference of about 5 years.

Sexual debut and median age at first marriage

Sexual debut is negatively related to age at first marriage. For instance, a woman who initiates sexual activity before age 20 is significantly more likely to enter into early marriage compared to that one who starts sexual activity when at least 20 years old (Ikamari, 2005). The outcomes of this study support this finding.

For both men and women, engagement in early sexual activity seems to accelerate marriage. Men and women who engage into sex when they are less than 14 years old (primary school going age) are more likely to enter into their first marriage younger compared to those between 14-17 years (secondary school going age) and 18 and above years (post secondary age). The effect of age at first sex is more pronounced among women compared to men. For instance, a woman who engages in sex when under 14 years will marry 2.6 years earlier than one who starts when 14-17 years old and 6.2 years earlier than one who starts sex after age 17. A man who engages in sex under age 14 on the other hand will marry 0.7 years earlier than one who initiates sex when 14-17 years old and 1.9 years earlier than a man who initiates sex at age 18 or older.

Table 5: Median age at first marriage for the ever married by sex and background characteristics

Variable	Category	Median age at first marriage (median survival time)	
		Males	Females
	Total	24.1	19.0
	Sample (n)	1,994	5,729
Highest level of education	No education	23.9	17.0
	Primary	23.2	18.5
	Secondary and above	25.3	21.4
	Sample (n)	1,994	5,729
Type of place of residence	Urban	24.6	19.7
	Rural	23.9	18.7
	Sample (n)	1,994	5,729
Place of residence	Nairobi	25.0	20.5
	Central	25.2	20.2
	Coast	23.8	19.9
	Eastern	21.4	19.5
	Nyanza	23.0	17.8
	Rift Valley	23.9	18.1
	Western	23.4	18.8
	North Eastern	23.6	17.2
	Sample (n)	1,994	5,729
Wealth index	Poor	23.1	17.9
	Middle	23.9	18.8
	Rich	24.8	19.8
	Sample (n)	1,994	5,729
Employment status	Unemployed	24.0	18.6
	Employed	24.2	19.6
	Sample (n)	1,994	5,729
Type of religion	Catholic	24.1	19.1
	Protestant/other Christian	24.4	19.3
	Muslim	23.1	17.7
	Other no religion	23.5	17.0
	Sample (n)	1,993	5,721
Ethnic group	Kikuyu	25.2	20.3
	Luo	23.5	17.7
	Luhya	23.6	18.9
	Kamba	24.4	19.7
	Kalenjin	23.5	18.4
	Mijikenda	22.7	17.3
	Meru	24.7	20.5
	Kisii	23.8	18.9
	Others	23.9	17.9
Sample (n)	1,994	5,729	
Sexual debut	<14 years	23.0	15.0
	14-17 years	23.7	17.6
	18 + years	24.9	21.2
	Sample (n)	1,987	5,729

4.4 Covariates of Age at First Marriage

The Multivariate life table (Cox proportional hazard model) is used in this study to assess the risk of men and women experiencing first marriage when exposed to different background characteristics.

Interpreting a Multivariate life table (Cox model) involves examining the coefficients for each explanatory variable. A positive regression coefficient for an explanatory variable means that, the hazard is higher and thus the prognosis is worse, for higher values. Conversely, a negative regression coefficient implies a better prognosis for subjects with values of that variable. Exponentiation of a regression coefficient yields the estimated hazard ratio. The hazard ratio gives the risk relative to the reference category which is normally assigned 1.000.

The table below presents the hazard ratios for males and females controlling for the full set of explanatory variables. For each of the covariates, the first category is considered as the reference category. A hazard ratio greater than 1 means that the risk of first marriage occurring is higher compared to the reference category. A hazard ratio under 1 means that the risk of first marriage occurring is lower compared to the reference category. The parameter estimates reported are the percentage of hazard that first marriage will occur for each unit change in the explanatory variable.

Education and risk of first marriage

The results show that controlling for other explanatory variables, education does increase the propensity of first marriage among men. For instance, men with primary education are significantly more likely to enter into first marriage (1.456) compared to men with no education.

This finding is consistent with the argument by Caldwell et al., (1983) that more educated men are thought to have a better chance of finding high status, high paying occupations and thus a greater chance of finding an appropriate mate, lowering the likelihood of an educated man to remain permanently single.

Among women, education lowers the risk of entering into first marriage. Women with primary and secondary education have less risk of entering into first marriage early compared to those

without education (primary .874; secondary .616). This means that education among women lowers the propensity for marriage.

The likely explanation for this could be that formal education tends to narrow a woman's range of potential marriage partners, since women are generally expected to marry men at least as educated as themselves (Singh and Samara, 1996).

Exposure to school is also thought to broaden a girl's perspective on the world, increasing her aspirations; present her with alternatives, for instance, work opportunities; and provide her with a more Western outlook on life, which can include wanting to have a greater influence on choice of her husband (Lloyd and Mensch, 1999). Education may also give parents a strong rationale for postponement of a daughter's marriage because of her enhanced income-earning potential (Lindstrom and Paz, 2001).

Type of place of residence and risk of first marriage

There are significant differences exist between men and women regarding the type of place of residence and the relative risk of entering into first marriage. Controlling for other factors, there is no significant difference between rural and urban men in the risk of entering first marriage. Rural women on the other hand are however significantly at more risk to enter into first marriage compared to those residing in urban settings (1.118)

Region of residence and risk of first marriage

Controlling for ethnicity, men from Nyanza (1.512) and Western (1.255) provinces have a significantly high risk of first marriage compared to those in Nairobi. An analysis of women's hazard ratios shows that women from Central (1.134), Eastern (1.295), Nyanza (1.331), Rift Valley (1.154), Western (1.201) and North Eastern (1.182) have a significantly high risk of first marriage compared to Nairobi women.

Wealth index and risk of first marriage

An analysis of the contribution of an individual's wealth status to the risk of first marriage reveals that, controlling for education, both wealthy men (.833) and women (.839) are at a significantly less risk of entering first marriage compared to their poor counterparts.

Employment and risk of first marriage

There is no significant difference in the risk of first marriage among the employed and unemployed men. Among women, the employed ones are at a significantly lesser first marriage risk (.879) compared to those without employment.

Religion and risk of first marriage

Men in protestant or other Christian religions have a significantly less first marriage risk (.905) compared to Catholics. There is no significant difference in the risk of marriage between Catholic and Muslim men.

Among women, those of other religions or no religion have a significantly higher first marriage risk (1.274) compared to Catholics. Protestant/other Christian and Muslim women's risk of first marriage is not significantly different from that of Catholics.

Ethnicity and risk of first marriage

The results on the relationship between ethnicity and the first marriage risk among men reveals that Luhya (1.332) and Kalenjin (1.246) men have a significantly higher risk of first marriage compared to Kikuyus. Men from Luo, Kamba, Mijikenda, Meru, Kisii and other tribes are not significantly different from Kikuyus in terms of the first marriage risk.

Among women, the Luo (1.161), Luhya (1.134), Kalenjin (1.238), Mijikenda (1.656) and other ethnic groups (1.137) have a significantly high first marriage risk compared to Kikuyus. Kamba (.785) and Meru (.745) women have a significantly less first marriage risk compared to Kikuyu women. Kisii women are not significantly different from Kikuyu women.

Age at first marriage and risk of first marriage

Age at first sex is positively associated with age at first marriage. An analysis of the relationship between onset of sex and entry into first marital union supports this argument. Both men and women who engage into sex when older have less risk of entering into first marital union compared to those who engage in sex earlier. For instance, men who start sex at age 18 or higher are significantly at less risk (.741) of first marriage compared to those who have their first sexual encounter when under 14 years. However, men within the secondary school going age (14-17 years) are not different from those within the primary school going age (<14 years). Women within the age bracket of 14-17 years (.551) and 18+ years (.276) have a significantly less risk of entering first marriage compared to women under 14.

Table 6: A Multivariate life table (Cox hazard model) analysis of the risk of entering first marriage for males and females by background characteristics, KDHS 2003

		Risk of entering first marriage							
		Model 1- Males			Model 2- Females			Hazard ratio	
		Coeff (B)	SE	Sig	Hazard ratio Exp(B)	Coeff (B)	SE	Sig	Hazard ratio Exp(B)
Highest level of education	No education (RC)	0.000			1.000	0.000			1.000
	Primary	0.376	0.11	0.000	1.456***	-0.133	0.05	0.004	0.874***
	Secondary +	0.028	0.11	0.803	1.028	-0.184	0.06	0.000	0.836***
Type of place of residence	Urban (RC)	0.000			1.000	0.000			1.000
	Rural	-0.004	0.07	0.953	0.996	0.111	0.05	0.013	1.118**
Place of residence	Nairobi (RC)	0.000			1.000	0.000			1.000
	Central	-0.003	0.10	0.972	0.997	0.125	0.06	0.032	1.134**
	Coast	0.060	0.11	0.594	1.062	0.098	0.07	0.189	1.103
	Eastern	0.029	0.12	0.815	1.030	0.259	0.08	0.001	1.295***
	Nyanza	0.413	0.12	0.001	1.512***	0.286	0.07	0.000	1.331***
	Rift Valley	0.057	0.09	0.542	1.059	0.141	0.06	0.012	1.154**
	Western	0.227	0.12	0.050	1.255**	0.183	0.07	0.008	1.201***
	North Eastern	0.102	0.13	0.140	1.107	0.167	0.08	0.034	1.182**
Wealth index	Poor (RC)	0.000			1.000	0.000			1.000
	Middle	-0.071	0.07	0.301	0.929	-0.094	0.04	0.017	0.911**
	Rich	-0.183	0.06	0.001	0.833***	-0.176	0.03	0.000	0.839***
Employment status	Unemployed (RC)				1.000				1.000
	Employed	0.088	0.06	0.150	1.091	-0.129	0.03	0.000	0.879***
Type of religion	Catholic (RC)	0.000			1.000	0.000			1.000
	Protestant/other Christian	-0.099	0.05	0.067	0.905*	0.027	0.04	0.436	1.027
	Muslim	0.142	0.13	0.256	1.152	-0.026	0.07	0.717	0.974
	Other/no religion	0.070	0.10	0.499	1.073	0.242	0.09	0.007	1.274***
Ethnic group	Kikuyu (RC)	0.000			1.000	0.000			1.000
	Luo	0.018	0.12	0.883	1.018	0.149	0.07	0.044	1.161**
	Luhya	0.287	0.12	0.016	1.332**	0.126	0.07	0.068	1.134**
	Kamba	0.163	0.12	0.185	1.177	-0.243	0.08	0.002	0.785***
	Kalenjin	0.220	0.12	0.075	1.246*	0.211	0.07	0.004	1.238***
	Mijikenda	0.197	0.16	0.228	1.217	0.505	0.10	0.000	1.656***
	Meru	0.194	0.16	0.217	1.215	-0.294	0.10	0.003	0.745***
	Kisii	0.143	0.16	0.357	1.153	-0.032	0.09	0.723	0.968
	Others	0.061	0.12	0.603	1.063	0.129	0.07	0.060	1.137*
Sexual debut	<14 years (RC)	0.000			1.000	0.000			1.000
	14-17 years	-0.081	0.07	0.246	0.922	-0.596	0.05	0.000	0.551***
	18+ years	-0.300	0.07	0.000	0.741***	-1.289	0.05	0.000	0.276***

RC refers to reference category

*** p<0.01 ** p<0.05, *p<0.10

Male -2Log Likelihood= 26357.387; Chi2=155.916, df=26

Female -2Log Likelihood= 81108.779; Chi2=1650.563, df=26

4.5 Summary

Chapter four presented the results of the analysis of factors affecting age at first marriage among men and women in Kenya. Life table technique was used to examine differentials in the median age at first marriage, and the factors affecting age at first marriage.

Differentials in median age at first marriage by various background characteristics and by sex are evident. For instance men had a higher median age at first marriage. Also educated men and women had a higher median age at first marriage.

Multivariate life table analysis results revealed that level of education, place of residence, region of residence, wealth index, employment status, type of religion, ethnicity and age at first sex are significantly associated with age at first marriage for men and women. The associations vary by sex in some instances.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents a summary of the study findings on the determinants of age at first marriage among men and women in Kenya, conclusions drawn from the findings and recommendations. Based on the research findings, policy and future research recommendations are made.

Summary

The objective of the study was to examine the determinants of age at first marriage among men and women in Kenya. Specifically, the study sought to establish the timing of marriage among men and women in Kenya; the social economic, socio cultural and demographic factors determining age at marriage in Kenya; and variation in the association between marriage timing and socio-economic/socio-cultural demographic variables; and to determine whether there is any variation in the outlined associations.

To achieve the above objectives, several hypotheses were tested by applying the survival models to data drawn from the 2003 Kenya Demographic and Health Survey. The study was guided by the 1988 United Nations framework for the study of marriage timing.

The dependent variable was duration to first marriage measured in single years. Eight explanatory variables were utilized in the study and these included; highest level of education completed, type of place of residence, place of residence (region), wealth index, employment status, type of religion, ethnic group and sexual debut.

Life table techniques namely bivariate survival life table and multivariate life table (cox proportional hazard model) were utilized in the analysis.

The life table method was used to estimate the differentials in the median age at first marriage. Life table analysis considered ever married men and women separately and estimated their median ages as 24.1 and 19.0 respectively.

Multivariate life table (Cox proportional hazard model) was used to establish the factors influencing age at first marriage among men and women in Kenya.

Education

The results confirm that education significantly affect age at first marriage amongst both men and women in Kenya, albeit differently. While it increases the propensity for first marriage among men, it lowers the risk of entering into first marriage among women. The risk of entering into first marriage is higher among men with primary and secondary or higher education compared to those without education. Conversely, the risk of entering into first marriage is lower among women with primary and secondary or higher education than those with no education.

Type of place of residence

The findings reveal that there is no significant association between the risk of marriage and type of place of residence among men in Kenya. Among women however, the type of place of residence is significantly associated with the risk of first marriage. For instance, rural women are significantly at more risk to enter into first marriage compared to their urban counterparts.

Region

Men from Nyanza and Western provinces have a significantly high risk of first marriage compared to those in Nairobi. Women from Central, Eastern, Nyanza, Rift Valley, Western and North Eastern have a significantly high risk of first marriage compared to Nairobi women.

Wealth index

Both wealthy men and women are at less risk of entering first marriage compared to the poor ones.

Employment

There is no significant difference in the risk of first marriage among the employed and unemployed men. Among women, the employed ones are at a significantly lesser first marriage risk compared to those without employment.

Religion and risk of first marriage

Men in protestant or other Christian religions have a significantly less first marriage risk compared to Catholics. There is no significant difference in the risk of marriage between Catholic and Muslim men. Among women, those of other religions or no religion have a significantly higher first marriage risk compared to Catholics. Protestant/other Christian and Muslim women's risk of first marriage is not significantly different from that of Catholics.

Ethnicity and risk of first marriage

Luhya and Kalenjin men have a significantly higher risk of first marriage compared to Kikuyus. Men from Luo, Kamba, Mijikenda, Meru, Kisii and other tribes are not significantly different from Kikuyus in terms of the first marriage risk. Among women, the Luo, Luhya, Kalenjin, Mijikenda and other ethnic groups have a significantly high first marriage risk compared to Kikuyus. Kamba and Meru women have a significantly less first marriage risk compared to Kikuyu women. Kisii women are not significantly different from Kikuyu women.

Age at first marriage and risk of first marriage

Age at first sex is positively associated with age at first marriage. Both men and women who engage into sex when older have less risk of entering into first marital union compared to those who engage in sex earlier.

Conclusions

The study focused its attention on age at first marriage among men and women in Kenya due to its role in fertility studies and in the shaping of gender roles and expectations in the society.

The risk of entry into first marriage for men is higher among those with education than those without while it's lower among women without education compared to those with education.

Rural men have no significantly different risk of entering first marriage from their urban men. Rural women are at a higher risk to enter into first marriage than urban women.

Men from Nyanza and Western provinces have a higher risk of first marriage than men from Nairobi province. Women from Central, Eastern, Nyanza, Rift Valley, Western and North Eastern have a significantly high risk of first marriage compared to Nairobi women.

Wealthy men and women are equally at less risk of entering first marriage compared to the poor ones.

There is no significant difference in the risk of first marriage among men with and without employment. Employment among women however reduces propensity for first marriage.

Men in protestant or other Christian religions have a significantly less first marriage risk compared to Catholics. There is no significant difference in the risk of marriage between Catholic and Muslim men. Women of other religions or no religion have a significantly higher first marriage risk compared to Catholics. Protestant/other Christian and Muslim women's risk of first marriage is not significantly different from that of Catholics.

Luhya and Kalenjin men have a significantly higher risk of first marriage compared to Kikuyus. Men from Luo, Kamba, Mijikenda, Meru, Kisii and other tribes are not significantly different from Kikuyus in terms of the first marriage risk. Among women, the Luo, Luhya, Kalenjin, Mijikenda and other ethnic groups have a significantly high first marriage risk compared to Kikuyus. Kamba and Meru women have a significantly less first marriage risk compared to Kikuyu women. Kisii women are not significantly different from Kikuyu women.

Age at first sex is positively associated with age at first marriage among both men and women.

Recommendations

Findings reveal that girl child education policies are likely to play a significant contribution to delaying entry into marriage for women but not necessarily for men. Secondary or higher education is associated with lower risk of entry into first marriage among women but a higher risk of entry into marriage among men.

Programs targeting youth sexuality should focus on reducing age at first sex as it increases propensity for first marriage.

Programs addressing wealth creation should aim at addressing poverty particularly among the poor male and female. Poverty is associated with early entry into marriage among both men and women. Further attention should be focused on creating employment particularly for girls as this lowers the likelihood of early marriage.

Ways through which covariates affect age at first marriage among men and women such as individual factors were not addressed in this study due to lack of appropriate data. Future studies should strive to look for pathways and examine interactions among covariates. These should be backed by qualitative analysis to establish the social cultural issues surrounding age at first marriage among men and women in Kenya.

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