REGIONAL VARIATION IN AGE AT FIRST MARRIAGE IN KENYA

BY

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DECLARATION

This project is my original work and has not been presented for a degree in this or any other University.

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DR.LAWRENCE IKAMARI

DEDICATION

To my dear dad and mum, Lwaki and Rose, for instilling the value of education and discipline in me. My cousin, Basil for his support. My siblings; Betty, Nelson, Derrick, John, Jacky and Maureen, for their prayers and support. My son, Reagan, for his patience. Finally, to my girlfriend: Vero, for her love, prayers and understanding.

ACKNOWLEDGEMENT

ABSTRACT

The study set out to examine regional variation in age at first marriage in Kenya using data drawn from the 2008/09 KDHS. Specifically, it sought to find out the socio-economic, socio-cultural and demographic determinants of age at first marriage in; Nairobi, Central, Coast, Eastern, Nyanza, Rift valley, Western and North Eastern. The analysis was extended to national level to necessitate comparison.

Two methods were employed in the analysis; survival life tables and proportional hazard model were used in the study. In addition, the study was guided by the United Nations (1988) framework for the study of marriage patterns. Age at first marriage was taken as the dependent variable. Seven explanatory variables were used in the study and these included: level of education, type of place of residence, occupation, religion, birth cohort, age at first sex and pre-marital birth experience.

Life tables indicate that median age at first marriage differ by region of residence, level of education, type of place of residence,pre-marital birth experience, age at first sexual debut ,religion, occupation and one's birth cohort.

For instance, generally women without any education and those with primary education enter into marriage earlier than their counterparts with at least secondary education. Women with premarital birth experience enter into first marriage earlier than their counterparts who don't have any pre-marital birth.

Level of education, birth cohort, religion, type of place of residence, age at first sexual debut and pre-marital birth experience are significantly associated with age at first marriage at national level. At regional level, age at first sexual debut is significantly associated with age at first marriage in all the regions. Occupation is only significantly associated with age at first marriage

in; Coast, Nyanza and Rift valley while religion is only significantly associated with age at first marriage in Coast. Birth cohort is significantly associated with age at first marriage in all regions except in Central region.

The findings of this study suggest that improvement in educational attainment for women will play significant role in delaying entry into first marriage. In particular secondary education should be made compulsory and accessible to women in all regions as a way of raising age at first marriage since higher level of education is significantly associated with lower risk of entering early into marriage. Adolescent Reproductive health programs with information on sexuality should be made easily available in all regions since women initiate sexual activities quite early and this may lead to early pregnancies/early child bearing/early marriage and sexually transmitted diseases including HIV/AIDS. The children Act 2001 that outlaws early marriage should be enforced and should target regions with higher prevalence of early marriages.

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CHAPTER ONE

INTRODUCTION AND PROBLEM STATEMENT

1.1 Introduction

Marriage is an important institution both for the individual and the society (Ikamari, 2005).It is a significant and memorable event in one's lifecycle as well as the most important foundation in the family formation process. It is a rite of passage that marks the beginning of an individual's separation from the parental units. It marks the beginning of socially sanctioned exposure to pregnancy and sets the course for subsequent childbearing. In many societies, it marks the transition into adulthood (Ikamari, 2005; Thapa, 2005; Ogolla, 2001).

Early age at marriage means early and prolonged exposure to the risk of pregnancy and may lead to a larger family size (Gyimah,2003).In Kenya, early childbearing has been identified to be the major cause of interrupted and discontinued education (AMREF,1994).The changes and variations in age of entry into marriage helps explain differences in fertility across populations over time (Ikamari,2005;Ezeh and Dodoo,2001;United Nations,1990).This implies that age at marriage has direct bearing on fertility outcome.

Age at first marriage affects fertility in two ways. First early marriage is directly associated with early childbearing and consequently may lead to a large family size due to prolonged exposure to the risk of childbearing. Secondly, delayed entry into marriage directly affects completed marital fertility by reducing the number of years available for childbearing (Ikamari, 2005).A later marriage permits women to complete their education, build labour force skills and develop career interests that compete with childbearing within marriage (Gyimah, 2004).

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1.2 Problem Statement

Age at first marriage is of great interest to demographers due to its direct link to fertility. It is the leading social and demographic indicator of exposure of women to the risk of pregnancy, especially in case of low contraceptive use. In Kenya, entry into marriage has been rising over the years. The median age at first marriage in Kenya rose from18.8 years in 1993 to 19.2 in 1998 to 19.7 in 2003 and to 20 years in 2008 (KNBS et al 2003;KNBS et al 2008;NCPD et al,1993).Relatively, early marriages have continued to be evident in North Eastern,Nyanza, Western and some parts of Coast province, while late marriages have continued to be evident in Nairobi and central provinces (NCPD et al 1993;NCPD et al,1998;KNBS et al,2008).

Provinces where early marriages have been recorded have remained to be high fertility provinces where as areas with relatively late marriages have continuously been recorded as the low fertility provinces (Muema, 2006).For instance median age at first marriage in North Eastern Province is 17.9 years with a total fertility rate of 5.9 while median age at first marriage in central province is 20.7 years with a total fertility rate of 3.4 (KNBS et al, 2009).

Previous studies on the determinants of age at first marriage in Kenya have established that education, ethnicity, religion, pre-marital births and region of residence are significantly associated with age first marriage in Kenya (Muema, 2006). However, not much is known about the determinants of age at first marriage at the regional level in Kenya. Since studies elsewhere have given contradictory results on significant determinants of age at first marriage, it is possible that, determinants of age at first marriage just like fertility rates vary from one province to the other. For instance education was found to be the most important predictor of age at first

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marriage in Ghana at National level (Gyimah, 2004).In Thailand, region of residence has been found to be the most important predictor of age at first marriage at national level. However in Malaysia and Mozambique, ethnicity is the most significant predictor of age at first marriage at national level (Arnaldo, 2005).The study therefore seeks to answer the following question: Does age at first marriage differ across regions of Kenya?

1.3 Objectives of the Study

The general objective of this study is to explore the regional variation in age at first marriage in Kenya. The specific objectives are:

1) To establish the socio-economic determinants of age at first marriage in each region of Kenya.

2) To find out the demographic determinants of age at first marriage in each region of Kenya.

3) To establish the socio-cultural determinants of age at first marriage in each region of Kenya.

1.4 Justification of the Study

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 46% (KDHS, 2008/09).Patterns of first marriage, marital dissolution and remarriage collectively play a dominant role in the determination of fertility levels and population growth. Research in developing countries has been motivated largely by a demographic interest in the initiation of reproduction. Entry into the marital state is an important life course transition and a fundamental

reflection of family structure. Age at first marriage derives its importance especially from the impact of nuptiality on childbearing. The study will contribute to a better understanding of regional differentials in age at first marriage in Kenya which according to Muema (2006), is poorly understood and hence add to the existing body of knowledge. Also the study will provide crucial for population policy planning and implementation by providing insight into past and future trends in marriage patterns.

1.5 Scope and Limitation

1.5.1 Scope

The study will use secondary data from 2008/09 KDHS with a sample of 8,444 women aged 15-49 selected from 400 clusters throughout Kenya. Sub samples of 5,276 ever married women will be considered in life table analysis while the entire sample (8,444 women) will be considered in Cox hazard model due to its ability to censor out cases that have not undergone first marriage.

1.5.2 Limitation

Given that the KDHS is a cross-sectional data, the pathways through which the covariates interact to influence age at first marriage will not be examined. Secondly, the study does not include men.

There is also the problem of measuring some of the independent variables such as education, and religion. For instance, religion may not permit me to identify people belonging to charismatic and non-charismatic churches or allow me to assess the direct effects of religious theology, attitudes, practices, and norms on women's age at marriage. This is important because the

religious groups under consideration here may differ in their religious teachings regarding gender roles, female status and education, spouse selection and childbearing practices. Furthermore, whereas education, particularly school enrollment, occurs during childhood, religious affiliation is usually established by the family at the time of birth and for the most part is unchanged throughout the life course. However, there is a chance that a respondent could change her religious affiliation after getting married or at any point during her adult life, particularly at a time when there is an upsurge of charismatic ministries. Thus, a full understanding of religious influence on marital factors including age at first marriage requires a consideration of the religious heritage in which an individual was raised rather than the respondent's current religious background.

Lastly, examination of age at first marriage also requires an understanding of the cultural changes in a society. In most national datasets, including KDHS, cultural variables are not available since the focus is on structural variables. Data on cultural change are typically obtained from attitudinal studies. Shifts in people's attitudes on different issues generally reflect changes in cultural norms and values. On the issue of marriage, shifts in how people view early or late marriage, spousal self-selection, sexual relations outside of marriage and sexual orientation could be indicative of the cultural context in which changes in marital patterns are taking place. However, DHS, like many datasets does not as yet collect data on people's attitudes. This will prevent me from understanding the cultural component of changes in marriage timing. Despite these limitations, I hope this study will shed some light on the factors influencing age at first marriage in Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section aims at reviewing the literature to identify factors that have been found to have a significant effect on age at first marriage in order to provide a basis for the study. The section begins by looking at socio-economic determinants of age at first marriage, then socio-cultural determinants of age at first marriage, and finally the demographic determinants of age at first marriage.

2.2 Socio-economic Determinants

2.2.1 Level of Education

Education has long been seen as a mechanism for ideational change that leads to postponement of marriage. Schools are always conduits for the transmission of new beliefs and values especially those that are "western" (Perelli, 2006).People who choose to attend higher institutions of learning may be predisposed to adopting new values especially in an environment of rapid social change. In many cases it is reasonable to assume that those who are more highly educated will be more likely to hold new "unconventional" values. In turn those people will be more likely to be innovators of behavioral change such as waiting longer to marry.

The effect of education on timing of marriage may also relate to development of value orientation and aspirations that give priority of preference to personal fulfillment and career development over traditional roles or early marriage and childbearing. Marriage is to be delayed

when it is incompatible with the attainment of one's personal goals and ambitions (Ikamari, 2005; Bracher and Santow, 1998).

Education may also affect the age of first marriage through effective use of contraception. Highly educated women are likely to use effective contraception which may make them avoid pregnancy which may consequently lead to late and planned marriage (NCPD et al, 1999).

In Kenya, national level study on effect of education on the timing of marriage by Ikamari (2005) showed that education has a statistically significant and strong delaying effect on marriage. The effect remained robust in the presence of a number of controls. Each additional level of education lowers the probability of first marriage significantly. The risk of first marriage is lower among educated women compared to those with no education at all. The effect of education on age at first marriage varies across generations of women and is more pronounced among the younger women, indicating increased postponement of marriage.

As expected, age at first marriage rises with education. Secondary and tertiary education exert strong positive and highly significant effects on age at marriage in Nigeria (Isingo-Abanihe, 1994).It is however noteworthy that women with primary education tended to marry earlier than those with no schooling at all, implying that a little education raises the chances of marriage relative to no schooling at all. The question then asked is; why would women with some primary schooling marry earlier than those without any schooling? The answer probably lies in the government's universal primary education program, particularly the emphasis on education, a policy which has been accompanied by high drop-out rates. It seems likely that with modernization, most men probably prefer wives with some education rather than no education;

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also girls who attend school appear to mature earlier, socially and biologically than those who did not attend school. Indeed the high demand for such girls is the major reason for dropping out of school since many parents withdraw their daughters from school so as to get married. Such situations encourage early marriage. On the other hand, girls who remain in school longer, especially up to the tertiary level have lost many potential marriage years during which they are likely to have been exposed to values and skills that are incompatible with early marriage norms (Isingo-Abanihe, 1994).

A closer examination of the data raises doubts about the dominant role of increased education as a cause of nuptiality change. For one thing, trends in education and age at first marriage are not always closely connected. Indeed, 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. Although an association between changes in schooling and marriage is evident after all, most developing countries have experienced both a rise in educational attainment and a rise in age of marriage, there is a weaker association than might be expected, given the determining power often attributed to educational change (Mensch,et al,2005).

2.2.2 Type of Place of Residence

Type of place of residence is also an important significant determinant of age at first marriage. Rural areas are generally associated with early marriage. People living in urban areas are

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exposed to a more diverse lifestyle and are subject to a weaker social control than those in rural areas.Also,urban environments offers a woman all the modern features associated with delayed marriage such as opportunities for women to acquire some formal education as well as employment in modern occupations. Such elements combine with the hardships of urban life to render profitable the postponement of family formation (Bangha, 2006).

On the other hand rural areas tend to have institutional and normative structures such as kinship and extended family that promote early marriage and childbearing (UN,1990;Ikamari,2005).
Social structures are less potent and individual's responsibility in the matters of marriage is emphasized in urban areas (Ikamari,2005).People in urban areas need to develop skills, gain resumes and achieve maturity to manage an independent household and thus they have to delay marriage. Furthermore, urban women tend to be more educated and engage in salaried employment than their rural counterparts (Ikamari,2005).

In 1993, age at first marriage by urban and rural differentials was found to be 20.6 and 18.5 years respectively (CBS 1998).In 2003, mean age at first marriage in the urban and rural areas increased slightly to21.4 and 19.3 respectively (CBS et al, 2003).In 2009 median age at first marriage for women in urban and rural areas was 22.2 years and 19.4 years respectively (GOK et al, 2009).

The reason for the observed difference could be that the people in the urban areas are likely to be more educated and thus are receptive to modern ideas which contribute to the breakdown of family kinship dominance and the erosion of various customary virtues such as traditional

sanctioned marriages (Agunda, 1989 c.f.Ogolla, 2001).The difference in mean age at first marriage between the urban and rural women in Kenya can also be explained in terms of the constraints imposed by urban life, which places greater strains on the parents in their efforts to provide food, healthcare, housing and education for family members (Ogolla,2001).

A study done by Uche Isiugo-Abanihe (1994) in Nigeria, reveals that urban residence significantly increases age at first marriage relative to living in the countryside. Relative to rural women, urban residents are more likely to marry at age 20 or above. He acknowledges that urban areas are the melting pot of cultures and offer different lifestyles and opportunities which may not be conducive to early marriage.

2.2.3 Region of Residence

Region of residence is identified as the geographic region in which the participant was interviewed. The age at marriage also differs significantly by region of residence. In Kenya, age at first marriage varies considerably by province in Kenya. Women from North Eastern and Nyanza provinces generally enter into marriage earlier than women in other provinces (KNBS et al, 2008).The difference in median age at first marriage in North Eastern and Nairobi provinces is as great as six years among women age 25-29, but this decline among the older women. The pattern of provincial differentials has remained constant over time although the median age at first marriage has increased slightly for all provinces since 1998.

The overall median age at first marriage in Kenya was 18.8 years among women aged 25-49 while the percentage never married in the same age group was 5.5 (NCPD et al, 1993).This

increased to 19.2 in 1998 with percentage never married in age 25-49 rising to 6.4 (NCPD et al, 1998) and to 19.7 in 2003 with percentage never married in the same age group rising to 7.6.There are also greater variations in age at first marriage by province. Women in North Eastern, Nyanza and Coast have the lowest mean age at first marriage (around 18 years). While Nairobi women have the highest (22.1 years).

Studies in Malawi reveal that mean age at first marriage is lowest in the Southern Region, followed by Northern Region and highest in the Central Region. Overall, women in Central Region on average got married later than women in Northern and Southern Regions (Palamuleni, 2011).

According to Sheela et al (2000), the level of SMAM is not uniform across the states of India. Generally the states situated in the South, the North-West and the East, have a relatively higher mean age at marriage than the rest of the states. Thus the states of Kerala,Tamil Nadu,Punjab,Gujarat,Assam and West Bengal have shown a significantly higher mean age at marriage than the national average in Census.

2.2.4 Occupation

Occupation of girls also affects age at marriage. Singh and Samara (1996) defined women's labor force participation as one of the three major factors (women's acquisition of formal education and urbanization are the other two) affecting women's age at first marriage. According to a recent study carried out in Kenya by Omondi, (2012),current work status of women is also found to be an important predictor of late age at first marriage, probably because it is related to

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work status before marriage, which tends to delay entry into marital unions. Female work outside the domestic sphere discourages early marriage, in part by putting a woman outside the control of her parents, thus giving her a sense of independence and an opportunity to earn income and to be self maintaining. Job search or entry into work may also lead to migration, particularly in the modern sector of employment, which makes possible delays of entry into marriage more likely to occur. Adedokun (1999) reported from Nigeria that 10.3% of women employed in the public and private sectors, 28.7% of self-employed and 34.4% of unemployed women were married between the ages of 15 and 19. Participants were asked whether they were currently working, aside from their housework.

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 is therefore, likely to depend on the 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 premarital 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).

According to Makheti (2008) women who are employed have a significantly lower risk of experiencing first marriage compared to the employed women.

2.3 Socio-Cultural Factors

2.3.1 Religion

Religion has also been found to have a significant role in determining age at marriage, particularly for girls (Adedokun, 1999; Pande, 2003).

According to findings from a study done by Makheti (2008) women belonging to other religions have a significantly higher first marriage risk compared to Catholics. Protestants/other Christians and Muslim women's risk of first marriage is not significantly different from that of Catholics.

One of the latest studies carried out in Kenya by Ocholla (2011) reveals that, Muslim women enter marital unions earlier than all other religious groups in Kenya. The prevalence of the traditional early and arranged marriage norms among Muslims and the characteristically low formal schooling attendance of the Muslim women are some of the reasons for early marriage (Ocholla, 2011). Studies show differences in the mean age at marriage for various religious groups. For instance, in Nigeria, Muslims have a mean age at marriage of 21.5 years compared with Christians (non-Catholic) who have an average age at marriage of 22 years, and Catholics of 22.5 years (Adedokun 1999). Various studies conducted in Asia indicate that the mean age at marriage for girls is lowest amongst Muslims, than the Hindus and highest amongst Buddhists (Pande, 2003).In India, religion and caste also exerted a strong influence on age at first marriage of women. Christian women evidenced by far the highest mean age at marriage; marrying almost three years later on average, than Hindu and Muslim women (Sheela,et al,2000).

2.4 Demographic factors

2.4.1 Age at First Sex

An early age at first sex is associated with increased probability of entry into first marriage in Kenya. Women who initiate sexual activity before the age of 20 years are significantly more likely to enter into early marriage than those who start sexual activity when they are at least 20 years old. Women who have no sexual experience are less likely to enter into early marriage compared to those who are sexually experienced. The effect of age at first sexual debut differs across generation of women and is stronger for the older cohorts than for young cohorts indicating a weakening of association between the onset of sexual activity and early marriage (Ikamari, 2005) In addition to family background, adolescent characteristics, and employment and educational histories, the structure of the women's premarital liaisons is shown to play an important role in the timing of first marriage. The greater a woman's involvement in no marital romantic and sexual activity, the less likely she is to be married by age 27-30 (Gaughan, 2002).

2.4.2 Premarital Childbearing

A national and regional study of the determinants of age at first marriage in Kenya, carried out by Muema, (2006) found out that pre-marital birth experience is significantly associated with age at first marriage both at national level and at regional level. Women who have not experienced pre-marital birth are significantly associated with higher risk of entering into first marriage. At national level, women who did not have pre-marital birth were 21 percent more likely to enter into first marriage compared to women who had premarital experience. No significant relationship was found between age at first marriage and premarital birth experience among women residing in low fertility areas. The higher risk of entering into first marriage associated

with women who have no premarital birth experience could be attributed to the fact that in Kenya, it is not culturally and socially acceptable to marry a woman who has a child born out of wedlock and therefore men tend to look for women who have no pre-marital birth thus exposing them to higher risk of entering into first marriage than those with pre-marital birth (Muema, 2006).

Bennett et al, (1995) on the influence of non marital childbearing on the formation of first marriages in America documented a negative association between non marital childbearing and the subsequent likelihood of first marriage in the United States, controlling for a variety of potentially confounding influences. Premarital childbearing does not appear to be driven by low expectations of future marriage. Rather, it tends to be an unexpected and unwanted event, whose effects on a woman's subsequent likelihood of first marriage are negative on balance. They found that women who bear a child outside marriage and who receive welfare have a particularly low probability of marrying subsequently, although there is no evidence that AFDC recipients have lower expectations of marriage. In addition, they found no evidence that stigma associated with Premarital childbearing plays an important role in this process or that the demands of children significantly reduce unmarried mothers' time for marriage market activities.

2.5 Theoretical Framework

This section conceptualizes the study. The study is guided by United Nations' (1988) framework for the study of marriage patterns. Nuptiality studies have drawn heavily on micro-economic theory that assumes utility maximizing behavior at the individual level, to explain marriage formation decision. The decision to marry or to remain single is based on the individual's

perceived gain from entering a particular marital union. The approach used is that of household economics in which individuals and households maximize utility subject to the constraints of time and resources. Thus the approach implies free and rational choices and assumes marriage occurs if, and only if, they both increase their utility relative to remaining single. The theory predicts that the gains are likely to be greatest for couples who are alike with respect to certain physical attributes as well as other characteristics such as education and intelligence, but different with respect to their potential earning power in the market and relative productivity in the home. However, it is worth noting that these factors do not operate in isolation. Social cultural factors and demographic factors are likely to interact with these economic factors to influence the age at first marriage. Cultural considerations include variations in norms and ideas on women's traditional roles as mothers and wives. Demographic factors include age at birth and sex and also pre marital childbearing. Based on this theory, the study uses the following conceptual framework.(See figure 1)

Figure 1: Conceptual Framework for the Study of Marriage Patterns
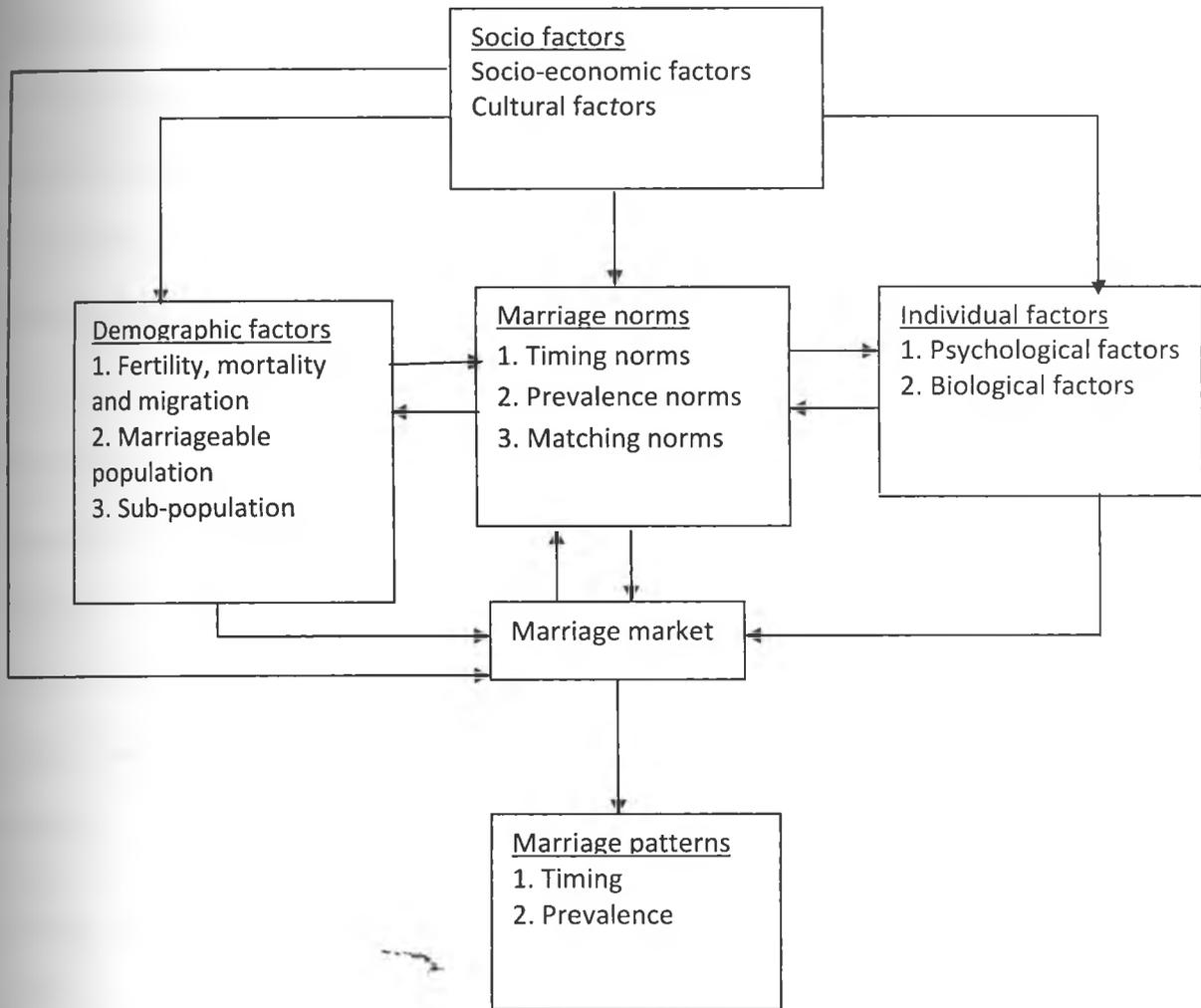
Source: United Nations (1988)

The model is composed of a combination of interrelated blocks of factors. The first block contains predetermined variables consisting of social factors (socio-economic and cultural factors. The social factors have been included within the social structure and are envisioned as consisting of sudden changes in social conditions that affect marriage patterns, such as civil disorders and wars, large scale migration or refugees movement. The social factors are assumed to influence directly four blocks of intermediate variables.

In the next level shown in figure 1 are three blocks of intermediate variables, comprising: demographic factors, fertility, mortality and the balance of migration movements together determine the overall population by age and sex.The marriageable population is a subgroup of the overall population that includes only men and women who are not married and who have reached the minimum age of marriage. The sub-population category shown in figure 1 refers to various sub groups composing the population, such as social strata, religious or ethnic groups which are characterized by different marriage patterns. 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 the prevailing marriage norms. Their effect on norms would occur for example as a result of disequilibrium in the sex ratio of the marriageable population, which creates condition for a new preferred age at first marriage norm to develop. The age at first marriage norm would develop as a result of declining mortality and changing fertility control behavior.

Marriage norms refer to the values held about legal and ideal age at first marriage (timing norms), marriage desirability (prevalence norms) and preference about marriage partners (matching norms).The potential significance of norms arise from the fact that they are assumed to reflect social traits affecting marriage not taken into account by standard socio-economic factors, and may help explain why the same socio-economic variables affect marriage timing differently in different social contexts.

Individual factors include psychological and biological factors. Their role is believed to be minimal at their aggregate level; because individual variations are assumed to cancel each other at the aggregate level. Hypotheses are difficult to test, however, because reliable data on a large

scale are not available. The marriage block represents probably one of the most complex networks of marriage influences. Within this block are included the offer and demand of marriage partners. Within the marriage market, the marriage formation process ensures the matching of marriage partners under a variety of socio-cultural conditions, defined primarily by the matching norms. Exit from the marriage market is achieved either by entering a marital or by giving up the wish or hope of marrying.

Finally,figure1 shows a block for the dependent variable to which the marriage patterns, described here under two dimensions:(a) timing of marriage (median age at first marriage) and (b) prevalence of marriage (proportions ever married at age 50).

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

2.6 Conceptual Hypotheses

Socio-economic factors are likely to influence age at first marriage.

Demographic characteristics of a woman are likely to influence age at first marriage.

Socio-cultural factors are likely to influence age at first marriage.

2.7 Operational Framework

The framework explains how; occupation, education, religion, current age, type of place of residence, age at first sex and premarital birth experience interact to influence age at first marriage. For the purpose of this study and on the basis of available data, the model is modified as follows. (See figure 2)

Figure 2: Modified operational Framework for the study of Determinants of age at first marriage.
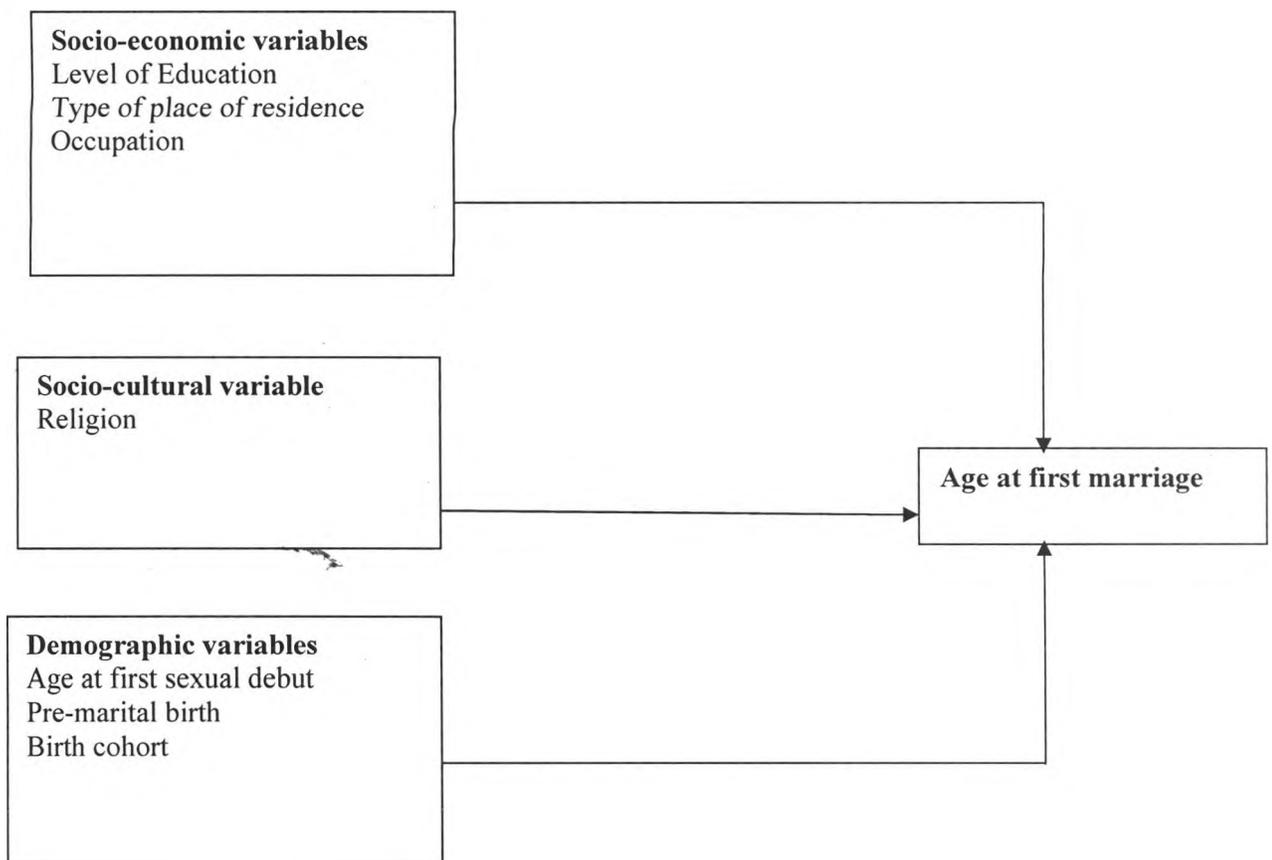
Source: United Nations, 1988 (Modified).

2.8 Operational Hypotheses

- Education is positively associated with age at first marriage.

- One's religion is likely to influence age at first marriage.

- Type of place and region of residence are likely to affect age at first marriage.

- Women who have had premarital birth are likely to marry early compared to women without premarital birth experience.

- Age at first sex is likely to affect age at first marriage among women.

2.9 Definition of Concepts

Nuptiality: The study of frequency of marriage. Formation and dissolution of marital unions.

Marriage: Used in the study to mean any union between a man and a woman regardless of the legality of the union.

Age at first marriage: Refers to the woman's age when she started living with a man.

Timing: Implies changes in the status from single to married and it involves the estimation of the average age of first marriage.

Cohort: Is a group of individuals with common characteristics.

Life Table: Is a statistical presentation of the life history of a cohort, commencing with starting event as the cohort is progressing thinned out over time by failure. The 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, disease incidence e.t.c

Event: Is any designated occurrence of interest than can occur to an individual such as marriage, birth, death, divorce, return to work etc

Time: This is period in years, months or days from the beginning of follow up of an individual unless an event occurs.

Censoring: This 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.

Variables and their Measurement

This section deals with the variables used in the study years and their measurement. The dependent variable is age at first marriage measured in completed years. The independent variables are level of education, religion, type of place of residence, age cohort, and age at sexual debut, occupation and pre-marital birth experience.

Education refers to the levels of formal school life that the respondent has accomplished. It has been linked to timing of marriage in many ways. In the study, education is measured in terms of no education, primary education and at least secondary education.

Religion can be said to be ones belief in a supreme being. The main denominations considered in this study are: Atheists/others, Protestant/other Christians, Roman Catholics and Muslims.

Type of place of residence is the current place of residence and is classified as urban or rural in the study

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Region of residence refer to the geographical area of current residence of the respondent. Kenya is divided into 8 regions or provinces and therefore region of residence is categorized into: Nairobi, Central, Eastern, Rift valley, Coast, North Eastern, Western and Nyanza provinces

Age cohort in this study refers to a group of women with the same characteristics. To examine generational differences in age at first marriage over time, three cohorts of women have been identified in the study: women born between 1958-1968, those born between 1969-1979 and those born between 1980-1994.

Premarital birth experience refers to birth before marriage. It has been classified as either Yes or No.

Age at first sexual debut is defined as age at which the respondent initiates into sexual activity (Age at first sex).It has been categorized into; Above 20 years/not had sex, under 15 years, and 15-19 years.

Occupation in this study is taken to mean paid employment. Categorized as; not currently working, agricultural, professional, clerical/sales, household, domestic /services and manuals.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents a description of the data and methods used for analysis in this study. The study makes use of data drawn from the 2008/09 Kenya Demographic and Health Survey (KDHS) and Cox proportional hazard model is the main method of data analysis.

3.2 Data Source

The data for this study comes from women's questionnaire of the 2008/09 Kenya Demographic and Health survey (KKDHS) undertaken by the Kenya National Bureau of Statistics (KNBS) in collaboration with among others, the National Coordinating Agency for Population and Development (NCAPD). The 2008/09 Kenya Demographic and Health Survey (KDHS) is a nationally representative sample survey of 8,444 women age 15 to 49 and 3,465 men age 15 to 54 selected from 400 sample points (clusters) throughout Kenya. It is designed to provide data to monitor the population and health situation in Kenya as a follow-up to the 1989, 1993, 1998, and 2003 KDHS surveys.

The survey captured information on: fertility, family planning, maternal and child healthcare, marriage, sexual activity, fertility preferences, information about HIV/AIDS and other sexually transmitted diseases, information on malaria and use of mosquito nets and domestic violence. The study focuses on 8,444 women interviewed during the survey. The sampling methodology is extensively discussed in the first country report of the survey (KNBS et al, 2009) and therefore

the study does not discuss how the data was collected. Data quality will not be checked as quality of other data variables has been extensively covered by the first country report of the survey.

During the survey all women were asked a series of questions regarding their marital status and whether they had ever lived with a man. All who reported that they were ever married or had ever lived with a man were asked to indicate how old they were when they started living with a man for the first time as a wife irrespective of the length or otherwise of their union.

The response to this question constitutes to the woman's age at first marriage. All women who indicated that they had never been in a union or lived with a man were considered single and were not asked the question about the age at first marriage. This is the standard way in which age at first marriage is measured worldwide in DHS module. In Kenya, non-marital cohabitation is hardly practiced and all women who cohabit with men consider themselves married (Ikamari, 2005).

3.3 Methods of Data Analysis

The dependent variable is the age at first marriage measured in terms of completed years. During the survey all women were asked a series of questions regarding their marital status and whether they had ever lived with a man. All those who reported that they were ever married or ever-lived with a man, were asked to indicate how old they were at the time when they started, for the first time ever, living with a man as a wife, irrespective of the legality or otherwise of their union. The response to this question constitutes the woman's age at first marriage. All the women who indicated that they had never been in a union or lived with a man were considered single and as a result they were not asked the question about the age at first marriage.

This is the standard way in which age at first marriage is being measured in the worldwide DHS program. It is worthwhile to note that in Kenya, non-marital cohabitation is hardly practiced and as such women who cohabit with men are considered as married (Ikamari, 2005).

3.4 Descriptive Statistics

An investigative preliminary analysis is carried out using frequencies to establish generally the characteristics of the study population. Percentages are used.

3.5 Survival (life) Tables

A Life table refers to a statistical representation of the life history of a cohort, commencing with the starting event as the cohort is progressively thinned out over time by failures. The failure in this study is entry into marriage. The idea behind the use of survival table is to follow a group of people from an initial time until they experience an event, in this case, first marriage. Thus, the use of survival life tables facilitates the estimation of median survival time (median age at first marriage).Median survival time (median age at first marriage) refers the point by which half of the women are expected to have gotten married.

Life table technique has a weakness in that, we must divide the sample into cross-tabulated (on the basis of covariate of interest) sub-sample and calculate separate life tables for each sub-sample. When none of the classes (sub-samples) is small, the procedure works perfectly, but often, the sample size becomes very small with several classifications ending up with numerous results and high standard errors. Under such situations, it is 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 model since it economizes cases so that we don't need such a large sample to get statistically meaningful results.

3.6 Cox Proportional Hazard Model

The age at first marriage may be interpreted as survival time from a single state to married state. Throughout this interval, women may either enter into marriage or be right censored at the time of the survey. In this case, women who were single at the time of the survey constitute censored cases. Censored cases require special treatment in estimating exposure time, and as such, ordinary regression procedures are not appropriate (Allison, 1995).

I, therefore use continuous time event history analysis techniques (Allison, 1984, 1995). In particular, the general proportional hazard (Cox) model is used to assess the effect of the covariates on the timing of marriage. The model is generally described as:

$h(t; x_1,..., x_n) = h_0(t) . \exp(b_1 . x_1 + ... + b_n . x_n)$

where $h(t,,,)$ denotes the resultant hazard, given the values of the n covariates for the respective case $(x_1, x_2, ..., x_n)$ and the respective survival time (t). The term $h_0(t)$ is called the *baseline hazard*; it is the hazard for the respective individual when the values of all the covariates are equal to zero.

The use of Cox regression in studying demographic processes such as the marriage is fairly common in the literature (Bracher and Santow, 1998; Choe *et al.*, 2004; Arnaldo, 2004).

The use of the Cox model allows us not to specify the hazard function, the relationship between the hazard rate and the duration of risk exposure, which is often difficult to specify at the outset. The proportional hazard model assumes that the hazard function for an individual depends on the values of the covariates and the value of the baseline hazard. As a result, given two individuals, say two women, with particular values for the covariates, the ratio of the estimated hazards over time will be constant.

CHAPTER FOUR

STUDY FINDINGS

4.1 Characteristics of the Study Population

This section examines the characteristics of the study population using descriptive statistics. Frequencies were used to show the number of cases and the percentage of each character. The respondents numbered 8,444 out of whom 5,809 had ever been in a marital status.

Table 4.1 shows the descriptive results of the preliminary analysis based on the variables of study. The results shows that about 56 percent of the women were born between 1980 and 1994, 28 percent were born between 1969 and 1979 while 16 percent were born between 1958 and1968. With respect to education, 52 percent of women had primary education, 33 percent had at least secondary education and about 15 percent had no education. With regard to type of place of residence, the results indicate that, 69 percent of the women lived in the rural areas while 31 percent lived in the urban areas. Majority of women were Protestants/other Christians, comprising of 61 percent of the total women sampled. Roman Catholics were 20 percent of all the women interviewed. Muslims and atheists/other religions were 16 and 3 percent of all the women interviewed, respectively.

The results show that 72 percent of the women had a birth by the time they were married while about 28 percent had not experienced a birth by the time they were married. About 49 percent of the women had first sexual experience when they were between 15-19 years. Women who had their first sex when they were below 15 years were 13 percent. Those who experienced their first

sex when they were above 20 years/those who had not had sex comprised of 38 percent of all women sampled.

On occupation, women who were not working were 44 percent. Those working in agricultural field were about 20 percent. Only 18 percent of the women interviewed were professionals. Household/domestic, clerks/sales women and manual workers all comprised of 18 percent of the women in the sample.(See table 4.1)

Table 4.1: Distribution of the study population according to background characteristics, Kenya 2008/09

Variable	Number of cases	Percent
Level of education		
No Education	1242	14.7
Primary	4404	52.2
Secondary +	2798	33.1
Occupation		
Not working	3739	44.3
Professional	1506	17.8
Clerical/Sales	610	7.2
Agricultural	1656	19.6
Household/Domestic/Services	521	6.2
Manual	391	4.6
Type of Place of Residence		
Rural	5829	69.0
Urban	2615	31.0
Premarital Birth experience		
No	2342	27.7
Yes	6102	72.3
Age at first sexual intercourse		
Above 20/No sex	3241	38.4
<15	1100	13.0
15-19	4103	48.6
Religion		
No/others	250	3.0
Protestant/Other Christians	5152	61.0
Roman Catholics	1684	19.9
Muslims	1358	16.1
Birth cohort		
1958-1968	1389	16.4
1969-1979	2340	27.7
1980-1994	4715	55.8
Sample size	8444	100.0

Source: Preliminary analysis, KDHS 2008/09

4.2 Differentials in age at first marriage

This section shows the differentials in age at first marriage as estimated using survival life tables. The differentials in age at first marriage for the whole country and for each of the eight regions have been presented using median age at first marriage. The median age at marriage is taken to refer to the age at which approximately half of the women are expected to have been married.

Table 4.2 indicates the median age at first marriage in Kenya by various background characteristics.

Table 4.2: Differentials in Median Age at First Marriage for each of the Regions according to the study variables, Kenya 2008/09.

Variable	Median Survival Time								
	KENYA	NRB	CENT	COAST	EAST	NYANZA	R/VAL	WEST	N/EAST
All ever married women	19.01	21.37	20.05	18.27	19.65	18.33	18.46	18.79	17.32
Level of Education									
No education	17.5	17.70	18.75	16.50	18.32	17.13	17.24	17.14	17.13
Primary education	18.40	19.16	19.48	18.09	19.33	17.54	17.62	18.20	17.90
At least secondary education	21.45	23.11	21.44	22.28	21.83	20.34	21.07	20.22	21.00
Occupation									
Not working	18.57	20.60	20.08	18.28	19.21	18.07	18.03	18.75	17.14
Professionals	19.88	22.58	21.43	18.78	21.23	19.06	19.64	19.07	19.50
Clerical/sales	19.32	22.50	20.16	18.60	20.08	17.78	18.95	18.98	Na
Agriculture	18.75	21.00	19.73	16.73	19.57	18.19	17.82	18.38	Na
H/H/Domestic/Services	19.12	20.84	19.22	19.00	20.45	17.75	18.75	18.38	Na
Manual	19.54	20.75	20.33	19.15	19.18	18.95	19.42	19.29	Na
Type of place of residence									
Rural	18.61	Na	19.99	17.46	19.61	17.99	18.19	18.73	16.94
Urban	20.10	21.37	20.38	19.55	20.85	19.50	19.99	18.99	19.14
Religion									
No/Others	18.15	24.45	21.75	16.65	17.25	20.50	17.73	16.50	18.00
Roman Catholics	19.28	20.45	19.89	18.79	19.67	18.16	18.46	19.09	Na
Protestants/other Christians	19.31	21.27	20.10	19.61	19.95	18.33	18.55	18.75	20.63
Muslims	17.62	21.00	18.00	17.58	18.38	19.13	16.50	18.40	17.25
Birth cohort									
1958-1968	19.27	22.29	20.07	18.86	20.36	18.28	18.29	18.52	18.07
1969-1979	19.65	23.03	20.65	19.07	20.05	18.75	19.21	19.30	17.69
1980-1994	18.42	20.22	19.50	17.60	18.89	18.11	18.05	18.54	16.80
Age at first sexual debut									
>20/No sex	21.96	23.51	22.44	22.22	22.18	20.06	21.38	20.69	21.50
Under 15	15.25	16.64	18.00	14.03	15.43	16.54	14.35	16.46	13.30
15-19	18.75	20.12	19.45	18.06	19.17	18.72	18.24	18.76	17.27
Pre-marital birth experience									
No	20.57	23.68	22.80	20.10	20.67	21.20	19.75	19.18	16.28
Yes	18.93	21.06	19.98	18.09	19.62	18.19	18.39	18.76	17.05
Sample size (ever married women)	5276	530	656	700	731	873	758	665	363

Source: Primary analysis, KDHS 2008/09

Na = non-applicable indicating that the character is not dominant in the region.

NRB=Nairobi, **CENT**-Central, **EAST**=Eastern, **R/VAL**=Rift Valley and **N/EAST**=North Eastern.

The results show that median age at first marriage for the whole country differs markedly from that at the regional level. Median age at first marriage differ by level of education both at national level and at regional level. Considering the whole country women with no education enter into first marriage 1 year earlier than those with primary education and 4 years earlier than those with at least secondary education. Women with no education in Rift valley, Nyanza and North Eastern province enter into marriage almost at the same time with those with primary education and 4 years earlier than those with at least secondary education. In Nairobi, Central, Coast, Eastern and Western provinces, women with no education enter into marriage 1 year earlier than those with primary education and 4 years earlier than those with at least secondary education.

Median age at first marriage slightly differ with occupation at national level and across regions. At national level, women who are not working, enter into marriage one year earlier than those in professional work, clerks, domestic workers and manual workers but almost the same time with those working in agriculture. Regionally, the same trend is visible in almost all regions except in Nyanza whereby, women who are not engaged in any form of work enter into marriage one year later than those who are working as clerks and domestic workers.

Median age at first marriage vary by type of place of residence both at national and regional level. Generally rural women enter into first marriage 1 year earlier than urban counterparts both at national and regional level.

Differentials in age at first marriage by religious affiliations are noted both at national and religious level. At national level, women professing Muslim faith enter into first marriage almost 1 year earlier than their counterparts who are either in other religions or totally are not in any

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religion. The Roman Catholic and Protestant women enter into marriage 1 year later than those who don't profess any religious faith or those in other religions. The Muslim women in Coast and Eastern regions get into first marriage 1 year later than their counterparts who are not in any religion and those in other religions. The Protestant/other Christian women in Nairobi and Nyanza enter into first marriage 2 years earlier than their counterparts who are not in any religion and those in other religions.

Further, the results show that there are differentials in age at first marriage by birth cohorts. At national level, women who were born between 1980-1994 enter into first marriage 1 year earlier than those women who were born between 1958-1968 and 1969-1979.In Nyanza, women of all birth cohorts enter into their first marriages almost at the same time. Generally, younger women enter into first marriage year earlier than the older women. Those women who were born between 1969-1979, delay to enter into first marriage compared to those born between 1958-1968 and 1980-1994.

Median age at first marriage differ by age at first sexual debut both at national and at regional level. Women who have had their first sex when they are 15 years and below, tend to enter into marriage earlier than other women. At national level, women who are 15 years and below enter into first marriage 3 years earlier than those women who have had their first sex when they are 15-19 years of age and at least 6 years earlier than those who have had their first sex when they are 20 and above years/women who have not had sexual experience. In Nairobi, women who have had their first sex when they are below 15 years of age, enter into first marriage 7 years earlier than their counterparts who have had their first sex when they are 20 years and above. In North Eastern province, women who have had their first sex when they are 15 years and below,

enter into their first marriage 8 years earlier than their counterparts who have had their first sex when they are 20 years and above/have no sexual experience.

Moreover the results indicate that age at first marriage differ depending on whether a woman has had pre-marital birth experience or not, both at national and at regional level.Generally,women with pre-marital birth experience enter into marriage earlier than those with no pre-marital experience. In North Eastern province, women with pre-marital birth experience enter into marriage one year later than those with no pre-marital birth experience.

From the results it is clear that there are differentials in the median age at first marriage both at national and in the various regions/provinces. However, the life table approach cannot account for the magnitude of effect of the various factors. Thus to determine the factors that influence age at first marriage, Cox proportional hazard model which facilitates the introduction of controls is fitted for the whole country and for the 8 regions.

Summary

Chapter five presented the results of the differentials in age at first marriage. Life tables indicate that median age at first marriage differ by region of residence, level of education, type of place of residence,pre-marital birth experience, age at sexual debut ,religion, occupation and one's birth cohort.

4.3 Factors affecting age at first marriage

This section presents the results of multivariate analysis as extended using Cox proportional hazard model, which can be viewed as a multivariate life table to establish the factors influencing

age at first marriage in Kenya at regional and national level. Coefficients were tested by use of Wald test. The results are presented in the table 4.3.

VARIABLE	RISK OF ENTERING INTO FIRST MARRIAGE								
	KENYA	NAIROBI	CENTRAL	COAST	EASTERN	NYANZA	RIFT VALLEY	WESTERN	NORTH EASTERN
Level of Education									
No Education(RC)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Primary	0.778***	1.1950	2.175**	0.7520***	0.6210***	0.9390	0.9180	0.9010	0.9920
At least Secondary	0.542***	0.6400	1.6640	0.4870***	0.5180***	0.5750***	0.6020***	0.6380**	0.8430
Occupation									
Not working(RC)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Professionals	1.0460	1.0010	0.9100	1.1920*	1.0160	1.0620	0.9280	1.0940	1.0330
Clericals/Sales	1.0410	0.8020	1.1240	1.2350*	1.0400	1.3340**	0.7360**	1.1210	1.0390
Agriculture	1.0140	0.8990	1.0720	1.2480*	1.2090	0.9370	0.9750	1.0800	-------
H/H,Domestic,Services	0.9740	0.9630	1.3070	0.6740**	0.7490	1.2400	1.1530	1.1850	1.0720
Manuals	0.9260	1.1710	1.1630	0.8500	0.8710	1.0220	0.7960	0.9110	0.9000
Birth Cohort									
1958-1968(RC)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1969-1979	1.0840**	1.1010	0.9070	1.3200**	1.1250	1.0660	0.9070	1.0220	1.3360
1980-1994	1.6220***	1.9090***	1.3680	1.9990***	1.7860***	1.3740***	1.3600***	1.339***	1.7420***
Religion									
No Religion/Others(RC)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Roman Catholic	0.8680*	1.0600	1.1830	0.8750	0.8610	1.3520	1.1250	0.6450	-------
Protestants/Other Christn	0.8780*	1.2550	1.1130	0.6940***	0.8240	1.4150	1.1150	0.6540	0.7540
Muslim	1.1170	1.5060	2.1200	0.7370**	1.0920	1.2520	1.4690	0.7150	1.0900

Table 4.3 continued

Age at First Sex									
Above 20/No sex(RC)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Under 15	2.950***	2.0260***	2.119***	4.5020***	3.6390***	1.5780***	3.4000***	2.014***	55.795***
15-19	1.724***	1.3930***	1.834***	1.8050***	1.8850***	1.1890*	1.6640***	1.401***	3.6450***
Premarital Birth									
No(RC)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Yes	1.576***	1.7080***	1.691***	1.5520***	1.5970**	1.6250***	1.5630**	1.2610	1.5160*
Type of Place of Residence									
Rural(RC)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Urban	0.827***	--------	0.9920	0.8590*	0.8740	0.7790***	0.7870**	0.9160	0.7660**

Source: Primary analysis, KDHS 2008/09

Significance level: ***p<0.01, **p<0.05,*p<0.10

Note: Refer to Appendix for coefficients and Standard errors

4.4 Socio-Economic Variables

The results show that education is a significant factor affecting age at first marriage in Kenya at national level. Regionally, level of education is significant in Central, Coast, Eastern, Nyanza, Rift valley and Western. As expected the risk of entering into marriage is lesser among women with primary education and those with at least secondary education as compared to women with no education. This could be attributed to the fact that women with no education are exposed to traditional norms that may favor early marriage such as, kinship ties. Another reason may be due to lack of a more productive activity, they find solace in settling in marriage to avoid premarital child birth which comes as a result of idleness due to lack of an opportunity to attend school. At national level, women with primary education are 22 percent less likely to enter into first marriage while women with at least secondary education are 46 percent less likely to enter into first marriage, all compared to women with no education. These relationships were significant at one percent level. At the regional level women with primary education in Nairobi and central are 20 percent and 18 percent respectively more likely to enter into first marriage as compared to those with no education. Women with at least secondary education in central province are 66 percent more likely to enter into first marriage as compared to women with no education. These relationships were all significant at one percent level except in Central region where it was significant at five percent level.

Occupation was found to be insignificant in determining of age at first marriage in Kenya at national level. At regional level, it was significant factor in determining age at first marriage in Coast, Nyanza and Rift valley, all significant at 5 percent significant level and in Coast at 10 percent level. In regions where occupation is significantly associated with age at first marriage,

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women working as professionals, clerks and those working in agricultural fields are associated with higher risk of entering into first marriage as compared to those women not working.

Type of place of residence is significantly associated with age at first marriage at national level. Regionally; type of place of residence is significantly associated with age at first marriage in Coast, Nyanza, Rift valley and North Eastern regions. Urban women are associated with lower risk of entering into first marriage. At national level, urban women were 17 percent less likely to enter into first marriage compared to rural women. This relationship was significant at one percent level. At regional level, women in all regions residing in urban areas were 12 percent to 22 percent less likely enter into first marriage as compared to their rural counterparts. The lower risk of entering into first marriage associated with women residing in urban areas could be attributed to the fact that women residing in urban areas are exposed to a more diverse lifestyle and are subject to a weaker social control than those in rural areas. Urban women tend to be more educated and are more likely to pursue careers that may lead to postponement of marriage. People in urban areas also need to develop, skills, gain resources and achieve maturity to manage an independent household and thus they have to delay marriage.

4.5 Socio-Cultural Variables

Religious affiliation is an important factor affecting age at first marriage in Kenya at national level. At regional level; religion is a determinant of age at first marriage only in Coast. At national level, Roman Catholic and Protestant women are 14 percent and 13 percent respectively less likely to enter into first marriage compared to those with no religion/others. In Coast, Roman Catholic, Protestant and Muslim women are 13 percent, 31 percent and 27 percent respectively

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less likely to enter into first marriage as compared to their counterparts without religion/other religions.

4.6 Demographic Variables

The results also indicate that age at first marriage is associated to birth cohort of the woman, and age at first intercourse. Pre-marital birth experience plays a major role in determining age at first marriage both at national level and at regional level except in Western.

Analytical findings indicate that, the birth cohort is associated with age at first marriage in Kenya at national level. At regional level birth cohort is significantly associated to age at first marriage in all regions except Central region. Younger women are more likely to enter into first marriage compared to the younger women. This could be attributed to the fact that older women are both less productive and reproductive as compared to their younger counterparts who still have the energy to bring forth children and take good care of them. The older women are viewed as "old-fashioned" and less active hence this delays their age of entering into first marriage. Another reason could be because women today are spending more time acquiring education and developing careers, they tend to postpone marriage. Nationally, women who were born between 1969-1979 and those who were born between, 1980-1994 are 1.08 and 1.62 times respectively more likely to enter into first marriage as compared to those women who were born between 1958-1968. A similar trend is depicted in all regions covered in this study except Central and Rift valley regions. In Central and in Rift valley, women who were born between 1969-1979 are 10 percent less likely to enter into first marriage as compared to their counterparts who were born between 1958-1968.

Pre-marital birth experience is significantly associated with age at first marriage at national.Pre-marital birth experience is an important factor in determining age at first marriage in all regions except in Western. Women who have experienced pre-marital birth are significantly associated with higher risk of entering into first marriage. At national level women who have experienced pre-marital birth are 58 percent more likely to enter into first marriage compared to those who have not had pre-marital birth. Similar trends are noted in all the regions covered in this study. The higher risk of entering into married associated with women who have experienced pre-marital birth could be attributed to the fact that since the main role of marriage is procreation; women with pre-marital birth experience tend to enter into first marriage early enough because they are readily accepted due to their ability to bring forth children. Due to high cases of female infertility, Men fear marrying a woman who may not be able to give him children and therefore, a woman who has a child prior to marriage is a clear indication of her fertility.

The results further indicate that age at first sexual debut is significantly associated with age at first marriage in Kenya both at national and at regional level. Women who initiate into sexual activities are significantly associated with higher risk of entering into first marriage. At national level, women who initiated into sexual activities when they were 15 years and below were 3 times more likely to enter into first marriage as compared to those women who had their first sex when they were 20 years and above/those women who had never had sexual intercourse. Women who had their first sex when they were between 15-19 were 2 times more likely to enter into first marriage as compared to those who had their first sex at age 20 and above/those who had never had sex.

Regionally, similar patterns are experienced though in North Eastern region, women who had their first sexual experience when they were below age 15, they were 56 times more likely to

enter into first marriage as compared to women who had their first sex at age 20 and above/those who had never had sex. These relationships were all significant at the one percent.

Summary

Chapter six presented the results of the analysis on factors influencing age at first marriage in Kenya and across various provincial regions. Cox proportional hazard model was used to examine the factors affecting age at first marriage. Results of Cox proportional model show that education, age, religion, type of place of residence, pre-marital birth experience, occupation and age at first sexual intercourse are all significantly associated with the risk of entering into first marriage at the national level and regional levels. Education is positively associated with age at first marriage. One's religion is likely to influence age at first marriage. Type of place and region of residence are likely to affect age at first marriage. Women who have had premarital birth are likely to marry early compared to women without premarital birth experience. Age at first sex is likely to affect age at first marriage among women.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the study findings of the determinants of age at first marriage in Kenya, conclusions and recommendations. Recommendations are made for future researchers based on the research findings.

5.2 Summary

The objective of this study was to examine the regional variation of age at first marriage in Kenya. Specifically, it sought to establish the socio-cultural, socio-economic and demographic factors affecting age at first marriage in each region of Kenya. The analysis was also extended to cover the whole country to facilitate comparison.

To achieve the above objectives, several hypotheses were tested by applying survival models to data drawn from the 2008/09 Kenya Demographic and Health Surveys. The study was guided by the United Nations (1988) model for the study of marriage timing. All the 8 provinces were considered as regions: Nairobi, Central, Coast, Eastern, Nyanza, Rift valley, Western and North Eastern

Age at first marriage was taken as the dependent variable. Seven explanatory variables were used in the study and these included: level of education, type of place of residence, birth cohort religion, occupation, pre-marital birth experience and age at first sexual debut.

Two methods were employed in the analysis; survival life table and multivariate life table (the Cox proportional hazard model).The proportionality assumption was brought separately by plotting the log minus log curve on the survival curve and it was not violated. The logs minus log results however are not presented in this report.

The survival life table analysis considered the ever-married women only and it showed regional variation in the median age at first marriage. North Eastern province has the lowest median age at first marriage of 17.32.Coast; Nyanza, Rift valley and Western province have almost a similar median age at first marriage of 18.27, 18.33, 18.46 and 18.79 respectively. Nairobi has the highest median age at first marriage of 21.37 followed by Central province which has median age at first marriage of 20.05.

Multivariate results showed that age at first sexual debut is significantly associated with age at first marriage in all regions. Occupation is only significantly associated with age at first marriage in; Coast, Eastern, Nyanza and Rift valley while religion is only significantly associated with age at first marriage in Coast.

5.3 Conclusions

Given the centrality of age at first marriage and nuptiality at large in fertility studies, this study paid attention on the differentials in age at first marriage in each region of Kenya. At national level, education, birth cohort, religion, type of place of residence, age at first sexual debut and pre-marital birth experience were found to be significantly associated with age at first marriage. At regional level, age at first sexual debut, is significantly associated with age at first marriage. Occupation is only significantly associated with age at first marriage in; Coast, Eastern, Nyanza

and Rift valley in all regions covered in the study, while religion is only significantly associated with age at first marriage in Coast.

As hypothesized, the risk of entering into first marriage was highest among non-educated women, not only at national level but also across all regions of. This could be attributed to the fact that women with no education are exposed to traditional values and societal controls that favor early marriage.

At national level and across all regions except in Central, age at first marriage differ significantly by birth cohorts of women. Older women are associated with lesser risk of entering into first marriage compared to the younger women. This could be attributed to the fact that older women are both less productive and reproductive as compared to their younger counterparts who still have the energy to bring forth children and take good care of them. The older women are viewed as "old-fashioned" and less active hence this delays   their age of entering into first marriage.

Religion is significantly associated with age at first marriage at national level and in Coast region. Both at national at regional level, there is a considerable variation in the risk of entering into marriage among women of different religions.

Type of place of residence is significantly associated with age at first marriage at national level but as far as regions are concerned, it is only significantly associated with Central, Eastern and Western. As expected, urban women are associated with lower risk of entering into first marriage. This could be due to the reason that, women residing in urban areas are exposed to a more diverse lifestyle and are subject to a weaker social control than those in rural areas. Urban women tend to be more educated and are more likely to pursue careers that may lead to

postponement of marriage. People in urban areas also need to develop, skills, gain resources and achieve maturity to manage an independent household and thus they have to delay marriage.

Pre-marital birth experience is significantly associated to age at first marriage in Kenya at national level but at regional level, it is significantly associated with the risk of entering into first marriage in all regions except in Western. Unexpectedly, women who have experienced pre-marital birth are significantly associated with higher risk of entering into first marriage. The higher risk of entering into married associated with women who have experienced pre-marital birth could be attributed to the fact that since the main role of marriage is procreation; women with pre-marital birth experience tend to enter into first marriage early enough because they are readily accepted due to their ability to bring forth children. Due to high cases of female infertility, Men fear marrying a woman who may not be able to give him children and therefore, a woman who has a child prior to marriage is a clear indication of her fertility uprightness.

Age at first sexual debut was found to be a very important factor affecting age at first marriage not only at national level but also across all regions. Women who initiate into sexual activities are significantly associated with higher risk of entering into first marriage booth at national level and at regional level.

There is no significant association between age at first marriage an occupation at national level and across some regions. Occupation though is significantly associated with age at first marriage in, Coast, Nyanza and Rift valley.

5.4 Recommendations

The findings of this study suggest that policies that improve higher educational attainment for women will play a significant role in delaying entry into first marriage. Secondary education should be made compulsory and accessible to women in all regions as way of increasing age at first marriage age since higher level of education is significantly associated with lower risk of entering into first marriage.

5.5 Recommendations for Programs

Adolescent reproductive health programs with information on sexuality should be made easily available in all regions since women initiate sexual activities quite early and this may lead to early pregnancies/child bearing/early marriage and sexually transmitted diseases including HIV/AIDS. The children act 2001 that outlaws early marriage should be enforced and should target regions where there is exposure to higher risk of entering into first marriage.

5.6 Recommendations for Further Research

The pathways through which the covariates influenced the age at first marriage in each of the regions were not examined due to lack of appropriate data since this requires a longitudinal data and yet KDHS data utilized here is a cross sectional data. Again, the cultural issues surrounding age at first marriage were not examined due to lack of adequate resources which include but not limited to time and finances. Future studies should seek pathways and investigate interactions between and among covariates. I also recommend a detailed qualitative methodology to establish the cultural issues surrounding age at first marriage in Kenya at national and regional level.

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APPENDIX

Appendix A: Multivariate hazard model of the risk of first marriage, KENYA, KDHS 2008/09 (National model)

VARIABLE	B	SE	Exp(B)
Education			
No Education(RC)			1.0000
Primary	-0.2610	0.0420	0.7780***
At least Secondary	-0.6120	0.0490	0.5428***
Occupation			
Not Working(RC)			1.0000
Professionals	0.0450	0.0380	1.0460
Clericals/Sales	0.0400	0.0520	1.0410
Agriculture	0.0140	0.0370	1.0140
H/H,Domestic,Services	-0.0260	0.0630	0.9740
Manuals	-0.0760	0.0620	0.9260
Birth cohort			
1958-1968(RC)			1.0000
1969-1979	0.0800	0.0360	1.0840**
1980-1981	0.4840	0.0360	1.6220***
Religion			
No Religion/Others(RC)			1.0000
Roman Catholic	-0.1420	0.0760	0.8680*
Protestants/Other Christians	-0.1300	0.0720	0.8780*
Muslim	0.1100	0.0750	1.1170
Age at First Sex			
Above 20/No Sex(RC)			1.0000
Under 15	-1.0820	0.0440	2.9500***
15-19	0.5450	0.0330	1.7240***
Premarital Birth			
No(RC)			
Yes	0.4550	0.0610	1.5768***
Type of Place of Residence			
Rural(RC)			
Urban	-0.1900	0.0330	0.8270***

Appendix B: Multivariate hazard model of the risk of first marriage, KENYA, KDHS 2008/09 (Nairobi)

VARIABLE	B	SE	Exp(B)
Education			
No Education(RC)			1.0000
Primary	0.1780	0.3240	1.1950
At least Secondary	-0.4470	0.3200	0.6400
Occupation			
Not working(RC)			1.0000
Professionals	0.0010	0.1160	1.0010
Clericals/Sales	-0.2210	0.1530	0.8020
Agriculture	-0.1070	0.3350	0.8990
H/H,Domestic,Services	-0.0380	0.1580	0.9630
Manuals	0.1580	0.1980	1.1710
Birth cohort			
1958-1968(RC)			1.0000
1969-1979	0.0960	0.1200	1.1010
1980-1994	0.6470	0.1300	1.9090***
Religion			
No Religion/Others(RC)			1.0000
Roman Catholic	0.0580	0.2040	1.0600
Protestants/Other Christians	0.2270	0.1820	1.2550
Muslim	0.4100	0.2520	1.5060
Age at First Sex			
Above 20/No Sex(RC)			1.0000
Under 15	0.7060	0.2080	2.0260***
15-19	0.3310	0.0950	1.3930***
Premarital Birth Experience			
No(RC)			
Yes	0.5350	0.1480	1.7080***
Type of Place of Residence			
Rural(RC)			
Urban	------	------	------

Appendix C: Multivariate Hazard Model of the Risk of First Marriage, KENYA, KDHS 2008/09 (Central)

VARIABLE	B	SE	Exp(B)
Education			
No Education(RC)			1.0000
Primary	0.7770	0.3860	2.1750**
At least Secondary	0.5090	0.3920	1.6640
Occupation			
Not Working(RC)			1.0000
Professionals	-0.0940	0.1400	0.9100
Clericals/Sales	0.1170	0.1540	1.1240
Agriculture	0.0690	0.1100	1.0720
H/H,Domestic,Services	0.2680	0.1840	1.3070
Manuals	0.1510	0.1760	1.1630
Birth cohort			
1958-1968(RC)			1.0000
1969-1979	-0.0970	0.0960	0.9070
1980-1994	0.3130	0.1010	1.3680***
Religion			
No Religion/Other(RC)			1.0000
Roman Catholic	0.1680	0.4200	1.1830
Protestants/Other Christians	0.1070	0.4150	1.1130
Muslim	0.7510	0.8320	2.1200
Age At First Sex			
Above 20/No Sex(RC)			1.0000
Under 15	0.7510	0.1610	2.1190***
15-19	0.6070	0.0900	1.8340***
Premarital Birth			
No(RC)			
Yes	0.5250	0.2010	1.6910***
Type of Place of Residence			
Rural(RC)			
Urban	-0.0080	0.1120	0.9920

Appendix D: Multivariate Hazard Model of the Risk of First Marriage, KENYA, KDHS 2008/09 (Coast)

VARIABLE	B	SE	Exp(B)
Education			
No Education(RC)			1.0000
Primary	-0.2850	0.0900	0.7520***
At least Secondary	-0.7200	0.1260	0.4870***
Occupation			
Not Working(RC)			1.0000
Professionals	0.1760	0.0940	1.1920*
Clericals/Sales	0.2110	0.1220	1.2350*
Agriculture	0.2210	0.1180	1.2480*
H/H,Domestic,Services	-0.3950	0.1610	0.6740**
Manuals	-0.1620	0.1630	0.8500
Birth cohort			
1958-1968(RC)			1.0000
1969-1979	0.2780	0.1030	1.3200***
1980-1994	0.6930	0.1030	1.9990
Religion			
No Religion/Others(RC)			1.0000
Roman Catholic	-0.1330	0.1770	0.8750
Protestants/Other Christians	-0.3650	0.1320	0.6940***
Muslim	-0.3050	0.1230	0.7370**
Age At First Sex			
Above 20/No Sex(RC)			1.0000
Under 15	1.5050	0.1190	4.5020***
15-19	0.5910	0.0920	1.8050***
Premarital Birth			
No(RC)			
Yes	0.4400	0.1420	1.5520***
Type of Place of Residence			
Rural(RC)			
Urban	-0.1520	0.0830	0.8590*

Appendix E: Multivariate Hazard Model of the Risk of First Marriage, KENYA, KDHS 2008/09 (Eastern).

VARIABLE	B	SE	Exp(B)
Education			
No Education(RC)			1.0000
Primary	-0.4760	0.1310	0.6210***
At least Secondary	-0.6590	0.1450	0.5180***
Occupation			
Not Working(RC)			1.0000
Professionals	0.0160	0.1230	1.0160
Clericals/Sales	0.0400	0.1640	1.0400
Agriculture	0.1900	0.0950	1.2090
H/H,Domestic,Services	-0.2890	0.2130	0.7490
Manuals	-0.1380	0.1950	0.8710
Birth cohort			
1958-1968(RC)			1.0000
1969-1979	0.1180	0.0940	1.1250
1980-1994	0.5800	0.0990	1.7860***
Religion			
No Religion/Others(RC)			1.0000
Roman Catholic	-0.1500	0.2950	0.8610
Protestants/other Christians	-0.1930	0.2940	0.8240
Muslim	0.0880	0.2980	1.0920
Age At First Sex			
Above 20/ No Sex(RC)			1.0000
Under 15	1.2920	0.1310	3.6390***
15-19	0.6340	0.0890	1.8850***
Premarital Birth			
No(RC)			
Yes	0.4680	0.2130	1.5970**
Type of Place of Residence			
Rural(RC)			
Urban	-0.1350	0.1530	0.8740

Appendix F: Multivariate Hazard Model of the Risk of First Marriage, KENYA, KDHS 2008/09 (Nyanza)

VARIABLE	B	SE	Exp(B)
Education			
No Education(RC)			1.0000
Primary	-0.0630	0.1850	0.9390
At least Secondary	-0.5540	0.1960	0.5750***
Occupation			
Not Working(RC)			1.0000
Professionals	0.0600	0.1030	1.0620
Clericals/Sales	0.2880	0.1270	1.3340**
Agriculture	-0.0650	0.0940	0.9370
H/H,Domestic,Services	0.2150	0.1670	1.2400
Manuals	0.0210	0.1530	1.0220
Birth cohort			
1958-1968(RC)			1.0000
1969-1979	0.0640	0.0950	1.0660
1980-1994	0.3180	0.0910	1.3740***
Religion			
No Religion/Others(RC)			1.0000
Roman Catholic	0.3020	0.3880	1.3520
Protestants/other Christians	0.3470	0.3830	1.4150
Muslim	0.2250	0.4910	1.2520
Age At First Sex			
Above 20/No Sex(RC)			1.0000
Under 15	0.4560	0.1120	1.5780***
15-19	0.1730	0.0950	1.1890*
Premarital Birth			
No(RC)			
Yes	0.4850	0.1520	1.6250***
Type of Place or Residence			
Rural(RC)			
Urban	-0.2500	0.0890	0.7790***

Appendix G: Multivariate Hazard Model of the Risk of First Marriage, KENYA, KDHS 2008/09 (Rift Valley)

VARIABLE	B	SE	Exp(B)
Education			
No Education(RC)			1.0000
Primary	-0.0850	0.0990	0.9180
At least Secondary	-0.5070	0.1130	0.6020***
Occupation			
Not Working(RC)			1.0000
Professionals	-0.0750	0.0990	0.9280
Clericals/Sales	-0.3070	0.1440	0.7360**
Agriculture	-0.0250	0.0920	0.9750
H/H,Domestic,Services	0.1420	0.2040	1.1530
Manuals	-0.2290	0.1510	0.7960
Birth cohort			
1958-1968(RC)			1.0000
1969-1979	-0.0970	0.093	0.9070
1980-1994	0.3070	0.093	1.3600***
Religion			
No Religion/Others(RC)			1.0000
Roman Catholic	0.1180	0.1540	1.1250
Protestants/Other Christians	0.1090	0.1460	1.1150
Muslim	0.3850	0.4100	1.4690
Age At First Sex			
Above 20/No Sex(RC)			1.0000
Under 15	1.2240	0.1160	3.4000***
15-19	0.5090	0.0840	1.6640***
Premarital Birth			
No(RC)			
Yes	0.4470	0.2130	1.5630**
Type of Place of Residence			
Rural(RC)			
Urban	-0.2390	0.1060	0.7870**

Appendix H: Multivariate Hazard Model of the Risk of First Marriage, KENYA, KDHS 2008/09 (Western)

VARIABLE	B	SE	Exp(B)
Education			
No Education(RC)			1.0000
Primary	-0.1050	0.1630	0.9010
At least Secondary	-0.4490	0.1770	0.6380**
Occupation			
Not Working(RC)			1.0000
Professionals	0.0900	0.0990	1.0940
Clericals/Sales	0.1140	0.1570	1.1210
Agriculture	0.0770	0.1100	1.0800
H/H,Domestic,Services	0.1690	0.2010	1.1850
Manuals	-0.0940	0.1700	0.9110
Birth cohort			
1958-1968(RC)			1.0000
1969-1979	0.0210	0.1000	1.0220
1980-1994	0.2920	0.1010	1.3390***
Religion			
No Religion/Others(RC)			1.0000
Roman Catholic	-0.4390	0.7610	0.6450
Protestants/Other Christians	-0.4250	0.7580	0.6540
Muslim	-0.3360	0.7730	0.7150
Age At First sex			
Above 20/No Sex(RC)			1.0000
Under 15	0.7000	0.1430	2.0140***
15-19	0.3370	0.1090	1.4010***
Premarital Birth			
No(RC)			
Yes	0.2320	0.2020	1.2610
Type of Place of Residence			
Rural(RC)			
Urban	-0.0870	0.0960	0.9160

Appendix I: Multivariate Hazard Model of the Risk of First Marriage, KENYA, KDHS 2008/09 (North Eastern)

VARIABLE	B	SE	Exp(B)
Education			
No Education(RC)			1.0000
Primary	-0.0080	0.1820	0.9920
At least Secondary	-0.1700	0.2970	0.8430
Occupation			
Not Working(RC)			1.0000
Professionals	0.0330	0.1710	1.0330
Clericals/Sales	0.0380	0.2970	1.0390
H/H,Domestic,Services	0.0700	0.2320	1.0720
Manuals	-0.1050	0.7260	0.9000
Birth cohort			
1958-1968(RC)			1.0000
1969-1979	0.2900	0.1320	1.3360**
1980-1994	0.5550	0.1310	1.7420
Religion			
No Religion/Others(RC)			1.0000
Protestants/Other Christians	-0.2830	0.8340	0.7540
Muslim	0.0860	0.7120	1.0900
Age At First Sex			
Above 20/No Sex(RC)			1.0000
Under 15	4.0220	0.2290	55.7950***
15-19	1.2930	0.1340	3.6450***
Premarital Birth			
No(RC)			
Yes	0.4160	0.2160	1.5160*
Type of Place or Residence			
Rural(RC)			
Urban	-0.2670	0.1330	0.7660**