

Factors affecting age at first marriage in Malawi

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Abstract

Background: Age at first marriage is associated with poor demographic outcomes such as high fertility and mortality and low contraceptive use. In Malawi marriage could be described as early and universal. The aim of this study is to examine the factors associated with early marriages in Malawi.

Methods: Data from the 2000 and 2004 Malawi Demographic and Health Survey (MDHS) are used. Univariate, bivariate and hazard proportional model were used to assess the association between age at first marriage and selected socio-economic factors.

Results: The results indicate that marriage in Malawi takes place early and the mean age at first marriage is 17.4 years. Age, education, religion, ethnicity and region are found to be the important variables in explaining age at marriage.

Conclusion: The findings of the study indicate that age at first marriage was associated with residing in rural areas, low education, ethnicity, region and being poor. These factors should be considered in designing new strategies to combat rapid population growth and reduce both fertility and mortality in the country. The policy implications of the results are discussed. Efforts to improve the status of women through their increased participation in education should be encouraged.

Key Words: Age at first marriage, Socio-economic factors, Hazard proportion model, Malawi

Introduction

Marriage is an important institution for the individual and the society at large. For the individual, it is a significant and memorable event in one's life cycle as well as the most important foundation in the family formation process. In addition, marriage marks the beginning to an end of the transition to adulthood as the individual separates from the parental home, even if generations continue to be socially and

economically interdependent through the extended family. Age at marriage is of particular interest because it marks the transition to adulthood in many societies; the point at which certain options in education, employment, and participation in society are foreclosed; and the beginning of regular exposure to the risks of pregnancy and childbearing. For the society as a whole, it unites several individuals from different families and represents the creation of a production and consumption unit as well as one for the exchange of goods and services (Ikamari, 2005).

In some societies marriage defines the onset of the socially acceptable time for sexual activity and childbearing. As such marriage is not only the most predominant context for childbearing but also one of the most important determinants of fertility (Bongaarts, 1983).

Changes in marriage pattern, such as delayed marriage, are believed to bring in the issues of dating, premarital sex, unwanted pregnancy, abortion, STDs and HIV/AIDS (Jones, 2007). Studies indicate that an increase in age at marriage leads to a rise in premarital sex and in absence of contraception this gives rise to unwanted pregnancies and a rise in adolescent fertility (De Silva, 2000).

Women who marry early will have, on average; a longer period of exposure to the risk of pregnancy, often leading to higher fertility. Historically, societies with later age at first marriage have experienced decreased fertility rates while in traditional populations in Asia and Africa where age at first marriage is younger, high levels of fertility has been observed (Bongaarts, 1983; Coale, 1971; Week, 2007).

Understanding variations in age at marriage helps in explaining differences in fertility across populations and fertility within individual populations over time (United Nations, 1990; Ezeh and Dodoo, 2001). Therefore, age at first marriage has a direct bearing on fertility behaviour (Davis and Blake, 1965; Coale, 1971; Lesthaeghe *et al.*, 1989).

Early marriage is associated with early childbearing as, in most cases particularly in the developing countries, the main purpose of marriage is to have children. Early childbearing is fraught with substantial health risks for both the mother and the child.

Young mothers are more likely to experience pregnancy related complications and less able to deal with them, which often lead to maternal death (Zabin and Kiragu, 1998). Children born to young mothers are usually subject to elevated risks of morbidity and mortality (Casterline and Trussell, 1980; Zabin and Kiragu, 1998; Ikamari, 1996). Early marriage and the consequent early childbearing are related to high fertility, low status of women and adverse health risks on the mother and child. The effect of late marriage on reproduction through shortening the reproductive life span has been widely recognized.

Another important issue related to early marriage revolves around evidence which suggests that marrying at an early age in some parts of the world leads to higher rates of divorce (Jones, 1992; VandenHeuvel and McDonald, 1994).

Delayed age at marriage directly affects completed fertility by reducing the number of years available for childbearing. Later marriage permits women to complete their education, build labor force skills, and develop career interests that compete with childbearing within marriage. These career interests may, in turn, motivate women to limit family size and / or widen the spacing of their children (Amin, 1995; Jensen and Thornton, 2003).

Given the importance of age at marriage in an individual's life history and its role in fertility and mortality transitions, surprisingly few analytic studies have been undertaken to investigate the determinants and consequences of marriage patterns in Malawi. Studies elsewhere have, however, identified a number of factors that seem to influence the timing of marriage (Hertrich, 2002; Singh and Samara, 1996; Jejeebhoy, 1995; Oppenheimer, 1988; Bloom and Trussell, 1984; Rindfuss and St. John, 1983).

Increases in age at marriage are associated with major social-structural changes such as increases in educational attainment, urbanization, and the emergence of new roles for single women (United Nations, 1987, 1988; Lesthaeghe *et al.*, 1989, Singh and Samara, 1996; Kaufman and Meekers, 1998). Jejeebhoy (1995) analyzed 51 studies based on a number of data sources, mostly the World Fertility Surveys and Demographic and Health Surveys (DHS), and found that education is the single factor

most strongly related to the postponement of marriage, but the relationship may be subject to threshold effects.

In many countries, the tendency for education to increase the age marriage becomes universal only after a few years of primary education. However, because the results of the few studies available are contradictory, little can be said about trends in the relationship between education and age at marriage over time (Jejeebhoy, 1995).

The nature of the relationship between timing of marriage on the one hand and socio-economic factors on the other hand has not been exhaustively investigated in Malawi. Therefore this study primarily examines the effect of social and economic factors on the woman's age at first marriage. In particular, the study aims at establishing the effects of some of the factors that have been indicated in studies elsewhere to be closely associated with the woman's age at first marriage. These include region and type of residence, education, religion and ethnicity.

Data and methods

The Data

The study is based on the analysis of data obtained from the 2000 and 2004 Malawi Demographic and Health surveys (Malawi Government, 2002b, 2006). The DHS (now DHS+) program has conducted over 170 nationally representative surveys in about 70 countries throughout Africa, Asia, the Near East, Latin America, and the Caribbean. The DHS program is funded by USAID and implemented by Macro International, Inc. DHS typically have large sample sizes of between 5000 and 30,000 households. These surveys provide data for a wide range of monitoring and impact evaluation indicators in the areas of population, health, and nutrition.

The MDHSs involved the use of three basic questionnaires. First, a questionnaire on households that recorded information on all household members.

Second, a questionnaire on individual women that recorded detailed information on eligible women who were identified from the household questionnaires. The 2000 MDHS collected data for 13220 women aged 15-49 whereas the 2004 DHS collected data for 11698 women of the same age range. Total sample for this analysis comprises

10,600 and 9605 ever-married women aged 15-49 years old in 2000 and 2004 data sets respectively. The questionnaires on individuals collected information on the respondent's background characteristics, reproductive history, knowledge and practice of family planning, breast-feeding practices, marriage, fertility preferences etc., as well as on her husband's background characteristics.

Third, a questionnaire for individual men aged 15-54 was administered and a total of 3092 and 3261 men were interviewed in 2000 and 2004 respectively. The male questionnaire was similar to that of the individual women questionnaire but excluded the birth history and maternal and child health sections. The analyses in this paper will use data from the individual women questionnaire only.

The Proportional Hazard Model

First developed by Cox (1972), the proportional hazard model has typically been applied in most analyses that seek to establish the determinants of risk of occurrence of an event¹. The underlying assumption of the model is that there is a hazard (or risk) at each duration² of the occurrence of an event (for example birth, death, marriage, marriage dissolution, etc. (Trussel and Bloom, 1983). In this study, we are interested in marriage.

To identify determinants of age at marriage, some studies have employed bivariate methods such as the probit and logit models where the dependant variable takes the value of 1 if marriage occurred after a particular cut off age, and zero otherwise. These methods, however, are prone to produce biased estimates when used to analyze current status data (Babalola, 2004). The hazard model on the other hand is appropriate for the analysis because age at marriage measures the length of time (the duration) till the occurrence of the event, hence, it accounts for women who have not yet experienced the events resulting in right censoring of the data. This study makes use of the hazard model to establish the determinants of age at marriage in Malawi.

¹ Bleslow (1974) and others have modified the model to accommodate tied events.

² Duration can be age, if it is measured as time since birth.

The study seeks to examine the relationship between the duration it takes to get married (marriage survival distribution) and its covariates by assuming a parametric model based on the exponential distribution. Specifically, for an individual i with a set of attributes represented by a vector of independent variables, X , the hazard function, denoted $h_i(t)$ is given by:

$$h_i(t, X, \beta) = h_0(t) e^{\beta' X_i} \quad (1)$$

Where t denotes duration to marriage (or survival time) and β is a vector of parameters to be estimated. The first term on the RHS of equation (1), $h_0(t)$, is the duration-dependent risk component of the hazard function while the second exponential term is relative risk component of the hazard function associated with having attribute X .

Since the hazard model is specified as an exponential model, we can convert it to a linear model by taking the natural log of equation (1), as follows:

$$\ln h_i(t, X, \beta) = \alpha + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_k X_{ik} \quad (2)$$

Where $\alpha = \ln(h_0(t))$ is a constant representing a log-baseline hazard and synonymous to the duration-dependent risk, in (1) above. Subset k denotes a $1 \times k$ matrix for the covariates. With logs, the hazard model coefficients, β_s are called the risk score. All else is as previously defined.

Definition of Variables

The variables of interest for this study were obtained from the individual women questionnaire. The dependent variables for this analysis, age at first marriage, were obtained from a question in the section on marriage in the individual woman's questionnaire: "How old were you when you started living with him?". The "him" refers to husband for those women who are married or any man the woman once lived with. Age at first marriage is a continuous variable.

The main interest of this study is to examine the interrelationship between age at first marriage and social and economic factors. Eight independent variables were used in the analyses: current age; education; region; type of residence (rural-urban), religion; ethnicity and wealth index. The variables selected in this investigation are those that

are frequently used for the analysis of age at first marriage. All the independent variables were obtained from the section on participant's background characteristics.

Age of Respondent

Current age of the respondent is one of the most important variables in demographic analysis (Shryock and Siegel, 1976). Vital events such as fertility, mortality, marriage and divorce are a function on age. Most countries in the world have set minimum age at which individuals can enter into marriage. Current age of the respondent is captured in 5-yearly age groups.

Place of residence

Current place of residence in urban or rural areas was used. Studies have shown higher rates of early marriage in rural areas than in urban areas (McLaughlin *et al.*, 1993; Westoff 2003). The 2000 MDHS reports the median age at first marriage of 20–24-year-old women at 18.7 years for urban women, and 17.8 years for rural women (Malawi Government, 2002, 79). In the study, place of residence enters as a rural/urban dummy variable.

Region of Residence

The age at marriage also differs significantly by region of residence. Studies in Nepal reveal that age at marriage varies by the ecological zones of the Hills, Mountains and Terai regions (Thapa 1989; Niraula and Morgan 1996; UNFPA 2002; Choe *et al.* 2004). The difference in age at marriage by ecological zone may in part be due to the concentration of Hindus and Muslims and low educational status of women in the Terai. Region of residence identifies the geographic region in which the participant was interviewed. This was coded as North, Center or South for the analysis. Each of the three regions of Malawi is captured as a 0/1 dummy in this study. The 2000 MDHS reports the median age at marriage of women at 17.7 years, 18.3 years and 17.7 years for women from the Northern Region, Central Region and Southern Region regions respectively (Malawi Government, 2002, 79).

Province of residence is similarly useful since different provinces may have different levels of socioeconomic development and may be culturally different, which may lead

to differences in marriage timing. We don't have any specific measures for culture due to data limitations and region of residence is the closest approximation we have in our models to control for any cultural differences between groups of people.

Ethnicity

Previous studies have found a relationship between ethnicity and age at marriage both in developed and developing countries (Kobrin and Goldscheider 1978; Thapa 1989, 1997; Adedokun 1999). Kobrin and Goldscheider (1978) report ethnic differences in age at marriage and marriage patterns in the United States of America, a highly industrialized country. McLaughlin *et al.* (1993) report that white women marry earlier than black women in the US; black women are only 45 per cent as likely to marry as white women in a given year. Adedokun (1999) reports the difference in age at marriage in Lagos, Nigeria, explaining that Yoruba people marry later than Igbo and other smaller ethnic groups. In this study, we include a 0/1 dummy variable for each one of the major ethnic groups, namely Chewa, Tumbuka, Lomwe, Tonga, Yao, Sena, Nkonde and Ngoni.

Education

The relationship between education and age at marriage is well established from previous studies (Axinn and Thornton 1992; Adedokun 1999; CBS 2003; Westoff 2003; Choe *et al.* 2004; Bates *et al.* 2007). Young women aspiring to college education are likely to delay marriage (Axinn and Thornton 1992). Adedokun (1999) found in a study in Nigeria that the duration of schooling has strong correlation with age at marriage. He reports an increase in the mean age at marriage of women from 20 years for 0–5 years of schooling to 22.6 years for 11–15 years of schooling. The 2000 MDHS reports that the median age of women at marriage increases incrementally with years of education: no education 17.4 years, primary education 17.5 years, senior primary 18.0 years and Secondary and above 20 years (Malawi Government, 2002, 79).

Similarly, parents' education has a significant effect on age at first marriage for both girls and boys. Parental educational attainment is also positively related to children's educational attainment, leading to higher age at marriage, because educational goals

and priorities are reinforced by parental role models (Michael and Tuna 1985). Additionally, Bates *et al.* (2007) found in their study of rural Bangladesh that mothers' education was significantly related to higher age at first marriage of daughters.

Educational level was determined by asking a participant if they had ever attended school and the highest level of school attended. Our final education categories are no education, Primary and Higher, all of which were captured as 0/1 dummies. Due to small numbers in the "Higher" category we combine "Secondary and Higher".

Religion

Religion has also been found to have a significant role in determining age at marriage, particularly for girls (Grenier *et al.* 1985; Adedokun 1999). Studies confirm that elders assume they have a religious obligation to marry off their sons and daughters (Dixon 1971). Studies show differences in the mean age at marriage for various religious groups. 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: 59).

Aryal (1991) cites the Nepal Fertility and Family Planning (NFFP) Survey of 1986 and reports the mean age at marriage of girls as lower for Muslims (14.5 years) than for Hindus (16 years) and Buddhists (19 years).

To determine religious affiliation, respondents in 2000 and 2004 MDHSs were asked to mention the religion they belonged to. The response options included Catholic, CCAP, Anglican, Seventh Day Adventist./Baptist, Other Christian, Muslim, No religion and other. We come up with four categories for religion, namely Christian, Muslim, Other religions and No religion. Each one of this is captured as a 0/1 dummy variable.

Economic status

In many societies the economic status of the family is significant in determining the age at which people marry. Axinn and Thornton (1992) stated that social and eco-

conomic conditions in the parental home affect the likelihood of marriage of young women. Dahal *et al.* (1993) observed from Nepal that girls experience delayed marriage where their parents have greater landholdings than their potential parents-in-law. Economic independence of women, as well as the economic status of the family, has a significant effect on the age at which women marry. Some scholars confirm that increasing economic independence of women is largely responsible for the delay in marrying (Preston and Richards 1975; Farley and Bianchi 1987) and a lack of independence accelerates the transition to marriage (Lichter *et al.* 1992; Oppenheimer 1992).

Wealth index was constructed using the following household assets data: electricity, radio, TV, bicycle, motorbike and car. Each item was given a score and it was summed across items for each household. Individual wealth was ranked as poor; middle and rich based on the total score.

Mean age at first marriage by background variables

Table 1 presents mean age at first marriage by selected background variables. Overall the mean age at first marriage is 17.4 years for all the women in both surveys. Specifically, the mean age at marriage is 17.41 years in 2000, which reduced to 17.36 years in 2004. Minimum age at marriage is as low as 8 (7) years and maximum is 44 (42) years in 2000 (2004). Median is close to the mean at 17 years in both surveys, represented by about 50 percent of the women.

The mean age at first marriage varies by background characteristics of the study population. The mean age at first marriage is lower among the younger women than older women. The mean age at first marriage is 16 years for women aged 15-19 increasing to 17.8 years for women aged 35-39 years and 18.1 years for women aged 45-49. In 2004 mean age at first marriage is 16.1 years for women aged 15-19 increasing to 17.7 years for women aged 35-39 years and 18.1 years for women aged 45-49.

In 2000 the mean age at first marriage is lowest in Northern Region, followed by Southern Region and highest in the Central Region. In 2004 the 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.

Women in urban areas on average got married slightly later than women in rural areas. In 2000 the mean age at first marriage is 17.8 years in urban areas as compared to 17.3 years in rural areas. Similar estimates for 2004 are 18.1 and 17.3 years respectively.

Women with no or primary education were among the youngest to get married compared to people who had secondary and higher education. In 2000 the mean age at first marriage ranged from a low value of 17.1 years among those with primary education, 17.3 among women with no education, 19.7 years among women with secondary education and 22.4 years among women with higher education. In 2004 the mean age at first marriage ranged from a low value of 17.1 years among with no education, 17.2 among women with primary education, 19.5 years among women with secondary education and 22.7 years among women with higher education. The differences in age at first marriage comparing no-education with those who had more than higher education were: 5.1 years in 2000 and 5.6 years in 2004.

The mean age at first marriage varies by religious affiliation. The mean age at first marriage was lowest among those respondents practicing other religion (17.1), then other Christian (17.2), Muslims (17.3), seventh day (17.4), No Religion, Anglican, Catholic (17.5) and highest among CCAP (17.8). It is interesting to note that age at first marriage among Muslim women is slightly lower than Christian women and women belonging to Catholic denominations have slightly lower age at marriage than Protestant women.

Poor people tend to get married earlier than people in middle and rich class. Comparing people in the poor category with those in rich category, the differences in age at first marriage were 2 years in both 2000 and 2004 MDHSs.

**Table 1: Mean Age at Marriage by Selected background variables for Malawi
2000 and 2004**

	2000				2004			
	Mean	SE	N	%	Mean	SE	N	%
Age of respondent								
15-19	16.0	1.5	1039	9.8	16.1	1.6	871	9.1
20-24	17.2	2.3	2513	23.7	17.1	2.3	2446	25.5
25-29	17.6	3.0	2237	21.1	17.5	2.9	2035	21.2
30-34	17.5	3.4	1516	14.3	17.7	3.5	1465	15.3
35-39	17.8	4.0	1372	12.9	17.7	4.1	1106	11.5
40-44	17.5	4.0	1027	9.7	17.7	4.0	925	9.6
45-49	18.1	4.3	896	8.5	18.1	4.5	757	7.9
Region								
Northern	17.2	3.0	1743	16.4	17.4	2.8	1227	12.8
Central	17.7	3.2	3581	33.8	17.7	3.2	3412	35.5
Southern	17.3	3.4	5276	49.8	17.2	3.4	4966	51.7
Place of residence								
Urban	17.8	3.2	2082	19.6	18.1	3.4	1182	12.3
Rural	17.3	3.2	8518	80.4	17.3	3.2	8423	87.7
Education								
No education	17.3	3.7	3198	30.2	17.1	3.7	2639	27.5
Primary	17.1	2.8	6469	61.0	17.2	2.9	5976	62.2
Secondary	19.7	3.2	917	8.7	19.5	3.1	950	9.9
Higher	22.4	3.2	16	0.2	22.7	4.0	40	0.4
Religion								
Catholic	17.5	3.1	2273	21.4	17.5	3.0	2035	21.2
CCAP	17.8	3.0	1796	16.9	18.1	3.4	1517	15.8
Anglican	17.5	3.1	255	2.4	17.8	3.3	197	2.1
Seventh Day Adventist/Baptist	17.4	3.1	674	6.4	17.6	3.2	608	6.3
Other Christian	17.2	3.3	3846	36.3	17.1	3.1	3540	36.9

Muslim	17.3	3.6	1581	14.9	17.1	3.5	1587	16.5
No religion	17.5	3.6	93	0.9	17.1	3.7	76	0.8
Other	17.1	4.1	78	0.7	19.1	6.1	41	0.4
Ethnicity								
Chewa	17.8	3.2	2777	26.2	17.6	3.2	2990	31.1
Tumbuka	17.4	3.0	990	9.3	17.4	2.7	904	9.4
Lomwe	17.0	3.2	2155	20.3	17.2	3.3	1872	19.5
Tonga	17.5	3.1	215	2.0	17.8	3.3	192	2.0
Yao	17.3	3.7	1580	14.9	17.1	3.5	1548	16.1
Sena	17.5	3.2	376	3.5	17.4	3.4	330	3.4
Nkonde	17.2	2.9	355	3.3	17.1	2.4	83	0.9
Ngoni	17.6	3.1	1131	10.7	17.8	3.2	923	9.6
Anyanya	17.0	3.3	614	5.8	0.0	0.0	0	0.0
Other	17.0	3.0	399	3.8	17.2	3.3	761	7.9
Wealth Status								
Poor	17.3	3.2	6405	60.4	17.3	3.2	5541	57.7
Medium	17.4	3.3	3983	37.6	17.5	3.2	3924	40.9
Rich	19.3	3.6	212	2.0	19.3	3.9	140	1.5
Total	17.4	3.2	10600	100.0	17.4	3.3	9605	100.0

Estimation Results

In Table 2, we present the results of fitting the Cox proportional hazard model to age at marriage model. Since the dependent variable has been logged, then a unit increase in the independent variable is associated with coefficient increase in the log hazard rate. An increase in the value of the variable X_{ik} will lower the relative risk if $\beta < 0$ and raise it if $\beta > 0$. Age, education, religion, ethnicity and region are found to be the important variables in explaining age at marriage. Rural/urban residence and wealth status, on the other hand, are found to be insignificant in the age at marriage model. We subsequently discuss the coefficients of each of the variables in turn.

Current age

The coefficients on five-yearly age group dummies indicate that relative to the reference category, women aged 45-49 years, the risk of marriage is increased in both surveys. However, the risk of early marriage decreases as a woman gets older. For women aged between 15 and 19 years in 2000 (2004) for example, the risk rate is increased by 91 (87) percent, compared to older women aged between 40 and 44, whose risk rate is increased by only 22 (10) percent.

Education

Education has three 0/1 dummy variables namely no education, primary and secondary. The reference category is “higher”. We expect education to lower the risk of early marriage. We find that compared to no education, education decreases the risk of early marriage, as expected. The magnitudes on the coefficients indicate that the decrease in magnitude of the likelihood of early marriage is higher for those women with more years of schooling. This means that women with more education have relatively lower risk of early marriage. For example, compared to women with a Primary education whose risk of marriage is decreased by 3 (11) percent in 2000 (2004), the risk score for women with at least Secondary education is only decreased by 66 (75) percent.

Religion

Christians is the reference category for religion dummies. The coefficient results show that relative to being a Christian, the hazard rate of early marriage is decreased if a woman is either Muslim, belongs to other religions or has no religion. The coefficient of Muslim is significant at 10 percent level of significance in both surveys. No religion is however, not significant, and other religions is significant only in 2004.

Ethnicity

Reference category for ethnicity is Chewa. In both surveys, the risk of marriage is found to be increased if a woman is Tumbuka, Lomwe, Yao, Nkonde and other, relative to being a Chewa. On the other hand, we find that being Sena relatively decreases the hazard rate of marriage. For Tongas and Ngonis, the hazard rate of marriage was decreased in 2004, while in 2000, it was increased.

Region

Region was represented by three 0/1 dummy variables representing the Northern, Southern and Central regions of the country. The Southern region is the base category. The estimates on the Central region dummy are consistently negative and statistically significant in both years. This means that the risk of marriage for women who live in the Central region of Malawi is lowered than that of women who live in the Northern region. On the other hand, the positive coefficient on the Northern region dummy indicates an increased risk for these compared to women in the Southern region.

Table 2: Hazard Model Estimates of the risk of Marriage

VARIABLES	(1) 2004	(2) 2000
Current Age		
15-19 Years	0.87*** (0.06)	0.91*** (0.05)
20-24 Years	0.52*** (0.05)	0.45*** (0.04)
25-29 Years	0.31*** (0.05)	0.30*** (0.04)
30-34 Years	0.19*** (0.05)	0.27*** (0.05)
35-39 Years	0.14*** (0.05)	0.17*** (0.05)
40-44 Years	0.10* (0.05)	0.22*** (0.05)
Education		
Primary	-0.11*** (0.03)	-0.03 (0.02)
Secondary	-0.75*** (0.04)	-0.66*** (0.04)
Religion		
Muslim	-0.07* (0.04)	-0.08* (0.04)
No religion	-0.02 (0.11)	-0.03 (0.10)
Other religions	-0.34** (0.16)	-0.03 (0.11)
Ethnicity		
Tumbuka	0.11** (0.05)	0.09** (0.05)
Lomwe	0.06* (0.04)	0.08** (0.03)
Tonga	-0.06 (0.08)	0.05 (0.07)

Yao	0.08 (0.05)	0.04 (0.04)
Sena	-0.06 (0.06)	-0.07 (0.06)
Nkonde	0.15 (0.11)	0.07 (0.07)
Ngoni	-0.03 (0.04)	0.03 (0.03)
Other	0.07 (0.05)	0.11* (0.06)
Region		
Central	-0.09*** (0.03)	-0.09*** (0.03)
Northern	0.01 (0.05)	0.01 (0.05)
Observations	9796	10936

*** p<0.01, ** p<0.05, * p<0.1
Standard errors in parentheses

Discussion and Conclusion

This study focused on examining the social, economic and demographic factors affecting age at first marriage among Malawian ever-married women aged 15-49 years old. The findings from the proportion hazard model indicate that Age, education, religion, ethnicity and region are the most important determinants of age at marriage in Malawi.

This study has implications for policies and programs that seek to promote the status of woman in Malawi. First, policies that aim at increasing the women's age at first marriage should be promoted. In this regard the unpopular *Chidyamakanda* (those who eat children) bill designed to reduce the minimum age at marriage from 18 years to 16 years and to legitimize those children who are "forced" into early marriages should be vigorously challenged. Second, it is crucial to continue improving girls and young women access to education in the country, as this is important avenue for increasing the women's age at first marriage and for empowering women so as to enhance their active participation in market economy. Similarly, it is advisable to target young women, particularly those with no or little education, with information on reproductive health and to provide them with basic life skills to enable them to avoid early sexual activity and ultimately early marriage. These should include primary school girls. This should be done throughout the country with more emphasis

placed on the least developed parts of the country. These programs should emphasize the health as well as the economic advantages of delayed marriage and childbearing. Third, from a demographic point of view Malawi still needs to reduce its fertility rate to “manageable levels”. One way of achieving this is by increasing age at first marriage. Lastly, there is need to conduct more studies on the causes and consequences of early marriage in Malawi. Future studies should not only be multidisciplinary but also qualitative in nature.

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